AN

ESSAY

ON THE

AUTUMNAL DYSENTERY.

By ANDREW WILSON, M. D.

Fellow of the Royal College of Phyſicians at EDINBURGH, and Phyſician to the Medical Aſylum, LONDON.

THE SECOND EDITION,

With an Introduction and Notes, containing occaſional Remarks on DR. ZIMMERMAN, &c. on the ſame Subject.

LONDON:

Printed for HOOPER and DAVIS, No. 25, Ludgate-Hill, and G. ROBINSON, Paternoſter-Row. 1777.

[Price 2s.]

TO

DR. JOHN RUTHERFORD,

PROFESSOR OF THE THEORY

AND

PRACTICE OF MEDICINE,

EDINBURGH.

SIR,

I HAD the Honour of Addreſſing this ESSAY to You, as my reſpected Maſter, my Patron, and my Friend; almoſt Twenty Years ago.

I cannot poſſibly expreſs the additional Degree of Pleaſure it yields me, to have an Opportunity of re-addreſſing You, and of mingling

ling my Veneration with my Eſteem, and my Affection for You, at this Remote Period of Time.

Though far and long removed from perſonal Intercourſe with You, I can never forget You; but ſhall remember You with Complacency, and the greateſt Reſpect, *dum Spiritus, hos regit Artus.*

I am, with moſt intire Regard and Eſteem.

SIR,

Your moſt Obedient,

And moſt Humble Servant,

ANDREW WILSON.

London, Adelphi
Oct. 20, 1777.

INTRODUCTORY DISCOURSE.

WITHIN leſs than two months after I went to reſide at Newcaſtle, an epidemic Dyſentery (a diſeaſe they had no memory of the place being ever viſited with before) broke out there with great violence, and to the great terror both of the town and populous country about it, in the beginning of the month of Auguſt, after an uncommon heat and drought for ſeveral months preceding. In the two firſt patients I was called to, that very ſymptom luckily occurred, which then I really looked upon, and ſtill do look upon, as a diſcovery towards aſcertaining the preciſe nature of the diſeaſe, and the certain invariable indications of cure. My good ſucceſs with my firſt patients, and with many others afterwards, and the obſervations I made, led me into that train of reaſoning which at the time I committed to writing, and which are contained in the follow-

ing ſheets, firſt publiſhed in ſummer 1760. I thought myſelf ſo enlightened, by conſidering that ſymptom as a key to the genuine nature of the diſeaſe, that I really never thought of conſulting any author afterwards for further inſtruction in it. I had formerly read Sir John Pringle's univerſally eſteemed obſerva tions on the Dyſentery, and other army diſeaſes, having been honoured with a preſent of it from his excellent brother Sir Robert Pringle, of Stitehill, when it was firſt publiſhed; and probably then I imbibed more of his views than I diſtinctly recollected when I wrote the Eſſay. But I had not an opportunity then, if I had thought of it, to examine how that matter ſtood, having left part of my family, and moſt of my books behind me, at a houſe and ſmall farm of the Marquiſs of Lothian's, that I was in poſſeſſion of for ſome time after I removed from it myſelf to Newcaſtle. In this edition of the Eſſay, I have taken notice wherein I have coincided with his obſervations.

I am not particularly acquainted in what manner other gentlemen, who have ſince treated of this ſubject have handled it; only as I was about republiſhing this Eſſay, I was curious to ſee how it was treated of by Dr. Zimmerman,

Zimmerman, phyſician in ordinary to his Britanic Majeſty, at Hannover. As I had no apprehenſion that he knew ought of my Eſſay, I was very deſirous to know if that ſymptom of the diſeaſe, which had caught my attention ſo much, had occurred in his obſervations. I did not find much ſatisfaction on that point, and was the more ſurpriſed at it, that in running over his work, I diſcovered that he had made uſe of my Eſſay, and totally ſuppreſſed his knowlege of it, while he was very profuſe in his references to every other latter Engliſh writer on the ſubject. I would be ſorry to mention this circumſtance upon preſumptive evidence only, but he has extracted a pretty long caſe verbatim from my Eſſay, which was to be found no where elſe, and introduces it in this very extraordinary manner, page 253 of the tranſlation by Dr. Hopſon—"I remember to have read a remarkable caſe "that happened in England, and is written "in the Engliſh language, which deſerves to be repeated here"—A very ſtrange way this of extracting from a writer upon the very ſubject he was treating of, while he was, almoſt in every page, citing other authors who had written in Engliſh as I had done—I make no remarks upon it.

There is one very diverting miſtake the Dr. has fallen into, through his imperfect knowlege of the ſignification of the word *luſty* in our language, which, I fancy, he has taken for ſynonomous with *wanton*, at leaſt I gueſs ſo. I ſay—a middle-aged, *luſty* and tolerably healthy widow.—The tranſlator of this caſe from the German, renders it a *briſk* and tolerablr healthy widow of a middle age. *Briſk*, I apprehend, Dr. Hopſon uſes as a diſcreet tranſlation of the German word Dr. Zimmerman had uſed for his idea of the ſignification of *luſty*.

I give Dr. Z. credit for introducing the uſe of ſuch agreeable purges as tamarinds, cream of tartar, &c. in the Dyſentery, but liquid purges in general were in uſe long before he wrote. Dr. Will. Eliot, now a phyſician at Jedburgh, in Scotland, when he joined the Britiſh hoſpital, in Germany, in 1760 or 1761, carried over my Eſſay with him, and wrote me afterwards from thence, that the method of treating the Dyſentery with purging, was attended with good ſucceſs there; but that Dr. Monroe preferred liquid purges, of ſalts and manna particularly, to thoſe of rhubarb and calomel which I recommended, and he thought they anſwered

ſwered better. I own, I never attempted the uſe of them, becauſe during the violence of that diſeaſe, I found ſo many who had ſuch conſtant nauſeas, that their ſtomach rejected their neceſſary drink and food, and in theſe caſes, I have obſerved bolus's or ſoft pills of rhubarb or ipecacuan ſtayed with them, when liquids would not: nay I have known patients bring up phlegm, bile, and other liquids the ſtomach was charged with, when the medicines they ſwallowed before in any conſiſtent form, did not come up with the braiding or reaching that they occaſioned. But I think the public is moſt obliged to Dr. Z. for the information he gives them, on the authority of his friend and correſpondent, of ripe fruits being an efficacious medicine in that diſeaſe, which had formerly been accounted a cauſe of it, but which I could never allow myſelf to ſuppoſe, as the reader will ſee in peruſing the Eſſay.

Dr. Z. ſeems to have conſidered any uſe of warming medicines and anodynes, as if it neceſſarily implied the neglect of purgatives. While theſe are not neglected, there is no diſeaſe that demands more the uſe of warming cordials than the Dyſentery does; as is evident from the faintneſs, clammy ſweats, and

low pulſe, &c. that are ſo frequent in it; nor can they have any bad influence on the primary ſeat of the inflammation in that diſeaſe. As to the anodynes, they are indiſpenſible; nor is there any circumſtance that can render the uſe (I don't mean the abuſe) of them dangerous, excepting only that of laxatives not operating. In that caſe indeed it is dangerous to meddle with them, nor can any prudent, judicious practitioner attempt to adminiſter them then, excepting with a deſign to procure ſome eaſe and ſtrength to the patients in order to prepare them for the repetition of, or applying again to evacuating medicines. They are neceſſary in ſmall glyſters; they are neceſſary to fix medicines in the ſtomach, and when evacuants have had their proper effect, they are neceſſary to procure reſt, natural warmth, and perſpiration, which is the ſecond great indication of cure after that of keeping the belly conſtantly open by day. But theſe things I have explained ſufficiently in the treatiſe itſelf.

When practitioners are agreed upon the method of cure, it may be deemed of leſs moment, whether they agree or not in their manner of explaining the ſymptoms of a diſeaſe; and yet it is a matter of no ſmall conſequence

ſequence to any practitioner who wiſhes to proceed rationally, and to form clear and diſtinct indications of cure in any diſeaſe.

I never could enter into that ſeries of reaſoning which imputed the Dyſentery to ſome putrid fomes in the blood, which nature, ſome how or other, threw upon the rectum, &c. in this diſeaſe; and that purging was indicated to drain off this putrid fomes out of the blood. I fancy moſt rational people now do agree with me, in thinking, that all evacuants act upon the maſs of our fluids, without any elective affinity with morbid ones more than others, excepting in ſo far as different medicines may have more ſenſible effects or irritation, upon one ſyſtem of glandular orrifices than another. I can ſee no reaſon to ſuppoſe that there is any putrid fomes in the blood, prior to the commencement of an autumnal Dyſentery, nor that what may be ſuppoſed to be in it afterwards could be cured by purging. The putridity in the blood during the diſeaſe being generated by the nature of the concomitant fever, and the abſorption of the obſtructed matter thrown upon, and ſeparated from the inflamed parts of the rectum, &c. which, from the nature and ſeat of the parts, is apt to putrify more readily than any whereelſe.

An

All that can be rationally meant by purging here, then can be no more than to relieve the obſtruction, and to keep up or reſtore that regular action of the inteſtines in carrying along and diſcharging the feces, which being diminiſhed or ſuppreſſed in different degrees, ſeems to be one of the moſt immediate cauſes of the obſtruction and inflammation in the immediate ſeat of the diſeaſe. The inteſtines being in a comparatively indolent ſtate when the diſeaſe is formed, the diſeaſe increaſes that indolence. The liver becomes affected by the morbid blood carried to it from the ſeat of the diſeaſe, and by the ſympathy with the bowels in general, which it has in all their affections, becauſe moſt of their blood is carried to it. It generates a vitiated bile, which, becauſe it is not tranſmitted ſo regularly downward as ordinarily, is thrown back into the ſtomach, and together with the diſorder generated in it by the febrile heat, and the torpidity of the inteſtines it communicates with, induces a conſtant nauſea, and inclination to throw it up.

The event plainly ſhows that this, and not any myſterious ſecretion of putrid humour from the blood, is the caſe. For when ever the paſſage

is opened, and the regular natural courſe of the excrements is reſtored and ſuſtained, the original diſeaſe is at an end; the weakneſs of ſtrength, appetite and digeſtion, the hiccough, and particularly the ſometimes tedious diarrhea, being all conſequences, and not, as Dr. Z. ſeems to account them, any continuation of the original diſeaſe. The characteriſtic ſymptoms of a true febrile Dyſentery are, a conſtant nauſea or bilous vomiting, a ſuppreſſion of the natural feces, and a conſtant niſus to diſcharge corrupted or ſuppurated humours from the inflamed ſore parts about the rectum, and colon, when it reaches ſo high.

It ſurprizes me much, that Dr. Z. ſhould have met with gripings and conſtipation, which, if neglected was apt to degenerate into the moſt dreadful Dyſentery; and yet that he ſhould never find the latter of theſe ſymptoms in the Dyſentery itſelf: eſpecially when it is known, that the ſlighter complaints that appear when the Dyſentery, or any other diſeaſe, if epidemic, bear always ſome relation to the nature of the epidemic itſelf.

Sir John Pringle is the only perſon I know of, who has expreſsly taken notice of the exiſtence of theſe hardend knotty feces, under the

the name of ſcybala; indeed he refers the diſcharge of them to the convaleſcent ſtage of the diſeaſe: it implies, I think, indeed, that they exiſted in the bowels during the diſeaſe; and I always found that the diſcharge of them, either in that form, or as re-diſſolved, gave an immediate favourable turn to the diſeaſe; when the propulſive or periſtaltic motion of the inteſtines was kept regularly up by laxatives: for if that was neglected, the bowels were apt to turn ſluggiſh again in their action, and all the ſymptoms of the diſeaſe to recur.—As to the other ſuety-like ſubſtances diſcharged, which Sir J. P. is alſo peculiar in noticing, I obſerved them indeed generally to make their appearance during that diarrhea which was ſubſequent to the Dyſentery, but which Dr. Z. ſeems to conſider as a continuation of it. Indeed he ſeems to include even benign diarrheas under his idea of a Dyſentery; as it would ſeem from his reference to theſe of *Java* and of *Paris*. He even ſeems to reduce a *cholera morbus* to that claſs likewiſe, if I am not miſled in this ſuſpicion by what he ſays, page 164, "The ſtools are "ſometimes inconceivably copious, and this "is ſo very dangerous a circumſtance, that "the

" the patient will appear in a dying condi-
" tion in the ſpace of twelve hours, and of-
" ten really dies in that time."—If this is a cholera which the Dr. here deſcribes, it is a dangerous miſtake to confound it with a Dyſentery; for if it is treated with cooling laxatives, and not with cordials and anodynes, the patient muſt inevitably die in a very ſhort time.

There is indeed another ſpecies of copious ſtools ſometimes to be met with in the very laſt ſtage of a Dyſentery, which are always a fatal ſymptom. Though the natural diſcharges have been ſuppreſſed through the courſe of the diſeaſe, yet at laſt upon the approach of a mortification, or of a paralytic ſtate of the inteſtines (which is known by a diminution of pain, cold ſweats, and a cold dampneſs of the extremities) then the inteſtines, having totally loſt their tone, the humours of the body, will pour in upon them, diſſolve the excrements, and bring them off in copious fetid ſtools immediately before death: but this is not a ſymptom that is conſtant, nor is it peculiar to the Dyſentery, for it happens frequently enough in the cloſing period of fevers, and alſo of other diſeaſes.

In

In this edition of the Eſſay, I have thrown every thing, that on reviſal occurred to me, into the Notes; in order to preſerve the original Text diſtinguiſhed from any thing I have thought neceſſary to add to it or illuſtrate it by.

CONTENTS.

CONTENTS.

SECTION I.

Page

THE Dyſentery defined and its nature explained —— —— 2

The three ſources of putreſcency in the Dyſentery —— —— 4

The fever belonging to the Dyſentery is more than merely ſymptomatic —— 5

The quantity of the morbid diſcharge in the Dyſentery —— —— 7

A threefold ſource and ſpecies of pain excited by the diſeaſe —— —— 9

The reaſon why the diſeaſe is generally confined to the lower inteſtines — 10

The reaſon and manner of the ſtomach's being affected —— —— 12

SECTION II.

Of the cauſe of the Dyſentery —— 16

Of

Page

Of the different influence of ſpring and autumn on our conſtitutions, in determining the ſeat of diſeaſes —— 18
Their reſpective oppoſite effects on the blood 19
The influence of winter —— id.
—— *of ſummer* — — 20
Of the three ſurfaces of the body — id.
The nature and influences of the equinoxes 21
The ſubſervience of theſe ſurfaces to each other 22
The immediate impreſſion of autumnal obſtructions of the ſkin on the inteſtinal canal 23

SECTION III.

Of the ſtate of the fluids —— 26
The temper of the ſtolſtices fix the characters of the diſeaſe of the ſucceeding equinoxes id.
The cauſe of tendency to putreſcence explained 27

SECTION IV.

Of the cure of the Dyſentery —— 29
The various ſymptoms of the diſeaſe enumerated 30
The ſigns of danger —— 31
The mortal ſigns —— —— id.
The three general indications of cure 32
Firſt indication —— —— id.
The proper management of glyſters 34
Antiſceptics when neceſſary —— 35

Second

Page

Seeond indication —— —— 36
Caſe illuſtrating it —— —— 37
Second caſe illuſtrating it —— 38
The great importance of diaphoretics next to purges —— —— 40
The uſe of aromotics in it —— 41
Third intention of cure —— —— 43
Reaſon of the utility of vomits —— 46
—— *of purgatives* —— —— id.
Diſtribution of the medicines indicated into day and night —— —— 48
Firſt of the day —— —— id.
Second of the night —— —— 49
The intention of uſing and combining diaphoretics and anodynes —— —— 51
How the above diſtribution may be contra-indicated —— —— 52, 53
The importance of the bark in this diſeaſe 55
Caſe illuſtrating it —— —— 59
Caſe of hardened excrements —— 64
Three ſymptoms attending the decline of the diſeaſe —— —— —— 66
Firſt ſymptom —— —— id.
Second ſymptom —— —— 67
Third ſymptom —— —— 68
The only method of releiving the hiccough 70

The

Page

The impropriety of aſtringents in the Dyſentery 72
Diſeaſes cotemporary with the Dyſentery and allied to it —— —— 77
The difference between the firſt and ſecond ſeaſon of its prevalence —— 80

A N

AN

ESSAY

ON THE

AUTUMNAL DYSENTERY.

THE Dyſentery prevailed exceedingly in New-Caſtle upon Tyne, in autumn 1758. and recurred again the ſucceeding autumn, not there only, but in many other neighbouring places, with ſeemingly greater violence, Some ſucceſs being aſcribed to my practice upon the firſt appearance of the diſorder, in the former of theſe ſeaſons, it gave me an opportunity of attending many in it afterwards, which I endeavoured to improve; for acquiring as preciſe an idea as I could attain of the determinate character of that diſeaſe, and of the moſt rational and ſucceſsful method of curing it. The conceptions that I then formed of the nature and genius of the

Autumnal Bloody Flux, and of the true indications of cure to be adhered to in it, I digeſted into the following Eſſay, which was firſt printed in the year 1760*.

The Bloody Flux is an epidemic † febrile, putreſcent, painful inflammation, primarily affecting the inner coat, but gradually extending itſelf through the whole ſubſtance, or all the coats of the great guts, eſpecially of the loweſt or rectum.

This inflammation is ſeldom communicated, in any remarkable degree, to the ſmall guts: but the ſtomach and liver, though they rarely or never partake of that inflammation which is the characteriſtic of this diſtemper in the rectum, the primary ſeat of it; they are nevertheleſs generally affected by it in a very particular manner.

This diſeaſe is called the Bloody Flux, becauſe more or leſs blood is generally, though not always, mixed with the ſlimy, fetid ſtools which are diſcharged during the courſe of it. The bloody diſcharge may be attributed to different

* It bears date 1761; but it is not uncommon with publiſhers to annex a date to their publications, poſterior to the real one.

† I have ommitted *Infectious*, in my definition of the dyſentury; becauſe, when a diſeaſe is epidemic, I know of no criterion to aſcertain whether it is at the ſame time infectious or not; and where this is the caſe, ſuch an idea ought rather to be diſcouraged, as tending to fright the timerous from their duty to the ſick, or diſcourage them under the diſcharge of it.

ent cauſes, according to the degree, malignancy and continuance of the diſeaſe; ſuch as the vehemence of the inflammation, ſtretching the veſſels opening into the cavity of the inteſtines, and ſtraining red blood thro' them, which does not naturally paſs that length undiſſolved; the acrimony of the humours which are diſcharged into theſe guts, during the inflammation, fretting and corroding the blood veſſels; or, when there is an actual ſuppuration, which is not uncommon, more of the blood veſſels are alſo thereby diſſolved.

During the increaſe and height of this diſtemper, it is very improperly called a Flux §. A proper Flux, or Diarrhea, is a conſtant flow of immoderately liquid, but otherwiſe natural ſtools, diſſolved by too great an irritation

§ This is that point which I ſtand ſingular in fixing upon as that criterion of the diſeaſe, which indicates the conſtant neceſſity of purging through the whole courſe of it, till the ſtools become natural again. It is a groundleſs and prepoſterous notion, to ſuppoſe there is a previous morbific pulreſcency in the blood; which nature, by ſome ſecret elective attraction, diſpoſes to be diſcharged by the lower guts, rather than any other part; and that, on that account, we ought to aſſiſt nature in diſcharging it by purging.

The putrid matter is not the cauſe, but the reſult of the inflammation.—I ſay I ſtand ſingular in this point, becauſe none of the various writers who have treated of this diſeaſe, ſince the firſt publication of this Eſſay, have condeſcended on the indolence of the bowels, to their natural and ordinary action, as a ſymptom of any importance in the diſeaſe.

Sir John Pringle, however, who wrote long before, particularly obſerves, that, though the dyſenteric ſtools are frequent, they are not large, and that they chiefly conſiſt of mucus mixed with blood; and, though he does not in as many words mention a retention of the natural feces as a ſymptom of the diſeaſe, yet few or none of theſe circumſtances have eſcpaed his obſervation that neceſſarily lead to the inference.

upon, or too great a relaxation of, the veſſels deſtined for mollifying the feces and lubricating the paſſages by their humours; by which means they are diſpoſed to diſmiſs a ſuperfluous quantity of them. But in the Dyſentery, the paſſage of the natural diſcharges is reſiſted, and their conſiſtence is often increaſed to ſuch a degree, that when they are urged along by the aſſiſtance of purgatives, they are excluded in unnaturally hard and dry little lumps or balls. This leading ſymptom of the diſeaſe, which I do not remember to have been attended to, I ſhall endeavour to explain afterwards.

That this Dyſentery is an epidemic diſtemper, is evident from its recurring periodically at a certain ſeaſon, namely, during the harveſt quarter. In the end of Auguſt, and in the month of September, while in fine clear weather (which is the moſt infectious) the days are almoſt as hot as at Midſummer, the evenings and mornings grow then remarkably colder than they are a month later in the ſeaſon. The nights are then likewiſe frequently foggy, and the weather, when it is not clear, is often very turbulent and ſtormy.

The ſeaſon of the year, the ſtate of the blood, and the ſeat of the diſeaſe, all conſpire

to

to give it a tendency to putreſcency. The blood is ſo much rarified by the preceding heat of ſummer, in contagious autumns*, as to acquire a greater degree of ſolution then, than the fluids are ſubject to at other times. It is on this account that autumnal diſeaſes, in general, do not bear bleeding ſo well as the diſeaſes of the other ſeaſons do: however violent the ſymptoms of any febrile diſeaſe then is, the blood is never ſo ſizy as it would be under the ſame circumſtances at another ſeaſon; neither is the craſſamentum, or red part of the blood, ſo firm†. Again, no inflammation in membranous parts produces ſo benign a matter, when it comes to ſuppuration, as it does in other parts of the body. The particular ſeat likewiſe of this diſeaſe ſubjects the matter ſeparated by it, whether ſuppurated or not, to greater heat and alteration by ferment, ſo that it ſooner acquires a putrid taint there than almoſt any where elſe.

There are many inflammations, both external and internal, which come on by gradual obſtruction, without any leading febrile ſymp-

* Contagious, I apprehend, not becauſe they convey any ſecret poiſonous infection into the blood; but becauſe they relax the ſolids, and render the progreſſive motion of the fluids weaker, thereby diſpoſing them, upon any accidental fever or inflammation, to contract a putreſcent diſpoſition and tendency.

† This is particularly remarked by Sir John Pringle.

tom; tho' a ſymptomatic heat and fever attends every inflammation of any conſequence: but in this diſeaſe, as in the Pleuriſy, Peripneumony, acute Rheumatiſm, &c. the firſt attack of local pain and inflammation is uſhered in by the common ſymptoms of a fever. Laſſitude, coldneſs, ſhivering or trembling, ſucceeded by febrile heat, drought, &c. precede or accompany the firſt acceſs of pain and gripings in the lower belly; and frequently alſo in the back oppoſite to the windings of the colon, are ſoon followed by ſlimy, bloody, fetid, unnatural dejections by ſtool. This obſervation renders it not altogether groundleſs to have ſome reſpect to a criſis in the courſe of this diſeaſe: indeed, though ſome other ſymptoms, ſuch as Diarrhea, Hiccup, &c. which are rather ſuperinduced as conſequences of the original diſeaſe, may run out to a conſiderable length of time; yet I have rarely obſerved, in perſons who recover, that the proper dyſenteric complaints and ſtools continue with obſtinacy, and unmixed with natural feces beyond the fourteenth or fifteenth day, unleſs the ulceration has been very great, the villous coat much abraded, or the diſeaſe unſkilfully treated.

An inflammation or load of humours falling upon

upon any ſurface naturally deſtined for a conſtant regular ſecretion, occaſions a ſeemingly increaſed, but vitiated and inſpiſſated derivation from that part. A ſeemingly increaſed ſecretion, I ſay, for it is doubtful whether the diſcharge is really increaſed or not: the natural ſecretion, being more mild and liquid, is alſo more apt to be reabſorbed again, or exhaled; and conſequently it makes a leſs ſenſible figure, though probably it is really greater, than thoſe diſeaſed ſecretions do. For example, we ſee how viſcid and how ſuperfluous a quantity of mucus is diſcharged from the membranes of the noſe during a common cold; tho' in fact a greater quantity of humidity is ſeparated in health, which makes a much more inconſiderable figure, being moſtly evaporated in effluvia. The caſe is quite parallel in the beginning of this diſeaſe while yet there is no actual ſuppuration, and in many there never is any; the villous coat of the loweſt great guts being obſtructed and inflamed, it conſtantly ſeparates a vitiated, glarey humour, inſtead of that mild moiſture which naturally bedews that cavity. The obſtruction to the regular paſſage of the feces occaſions theſe ſlimy dejections to appear ſtill more in quantity; for all the moiſture deſtin-

ed to mollify them is collected, inſpiſſated, and forced away by itſelf: indeed it becomes ſoon ſo tenacious by the inflamed heat of the parts, that when natural ſtools are urged along, that morbid ſtuff is too glarey to incorporate with them, and therefore comes off in conſiderable quantities by itſelf. This conſtant ſlimy diſcharge from an inflamed part allotted for ſuch a conſtant ſecretion, is the plain reaſon why inflammations never ſwell thoſe organs to ſuch a degree and magnitude, as they frequently do external parts and viſcera, which diſcharge their ſecretions by canals: the diſeaſed guts are nevertheleſs always thicker in their ſubſtance than in the natural ſtate, as has been found upon diſſection *. It is plain, however, from the ſymptoms, that the villous coat is the primary ſeat of the diſeaſe, which yields a favourable prognoſtic: I have frequently found confirmed by experience, that when the diſeaſe is early taken notice of and properly treated, it is eaſily removed, at leaſt its future violence and danger are checked.

No

* See Dr. Pringle's Diſeaſes of the Army, upon whoſe teſtimony, Bonetus's, &c. this is founded, for I never had an opportunity of any obſervation of that kind; a violent averſion to all diſſections, and an indifference about them on the other hand, being among the local prejudices of New Caſtle.

No inflammation is without ſome pain, though ſeveral of the internal viſcera are endowed with but a ſmall degree of ſenſibility: but the pain which ariſes from the inflammation which conſtitutes this diſeaſe, is of a very excruciating and complicated nature; which yet does not ariſe ſo much from the acuteneſs of the local pain, as from an almoſt conſtant forcible painful niſus impreſſed upon the parts in immediate connection with the ſeat of the inflammation. The windings of the colon are affected with ſuch violent griping and conſtant wringings, as are ordinarily felt during the operation of draſtic purges, not properly corrected: the ſeat of the inflammation itſelf is afflicted with a conſtant painful preſſure upon it, partly from the violent action of its own muſcular fibres, and partly from the ſympathetic contraction of all the muſcles which act in connection with it: this preſſure is ſometimes ſo intolerable, that I have frequently heard female patients compare it to thoſe violent niſus's excited in child-bearing. There is another no leſs afflicting and uninterrupted ſource of pain than either of theſe; the inflammation reaching almoſt from its firſt invaſion to the very extremity of the Anus, the Sphincter is thereby kept in a conſtant

paſmodic

ſpaſmodic contraction, and is ſo tightened upon the inflamed parts which it is bound round, that it occaſions very great anguiſh, which is ſtill heightened by the dryneſs of the parts within the action of the Sphincter: for the conſtant moiſture upon the ſurface of internal inflammations is a great alleviation of the pain they would otherwiſe cauſe. This laſt ſpecies of dyſenteric pain is well known to thoſe who are afflicted with the Hemorrhoides, particularly the Cæci. It is this painful affection which induces that teneſmus ſo inſeparable from the Dyſentery.

The ſingular aptitude and particular deſtination of the ſmall guts, beyond any other part of the alimentary canal for abſorption, renders them leſs liable to fall into the inflammatory ſtate of the lower guts in this diſeaſe. As the ſmall guts are principally appointed for taking up the chylify'd aliments, they are therefore far more abundantly ſtored with chylous and other abſorbent veſſels than with excretories. The facility and expeditiouſneſs with which abſorption is performed in them, renders their ultimate arterial veſſels far leſs liable to obſtruction. For the ſame reaſon, when any inflammatory obſtruction does happen

pen there, as in the Cholera *, Iliac Paſſion, &c. their vehemence and career is much greater, and the danger more imminent and inſtantaneous; whereas it is much more ſlow and leſs acute, though often not leſs dangerous in the great or lower guts. There is indeed an obſtruction of another kind, which the ſmall guts are liable to; namely, that of the Meſeraic Glands, by which the Chyle is vitiated, robbed of its glandular concoction and acquiſitions, and at laſt its paſſage is gradually ſtopped; but that obſtruction belongs to, and is the cauſe of another ſyſtem of diſeaſes which have no connection with the preſent ſubject. Another reaſon why theſe bowels are not ſo ſubject to the obſtruction and inflammation which characteriſe this diſeaſe, is the fine liquified rare ſtate, in which the aliments paſs along this diviſion of the chylopoetic Viſcera: it is never much loaded with any collective quantity of thoſe parts of the Injeſta which are indigeſtible

* The cholera morbus is here improperly referred to local obſtruction. It is rather owing to exceſſive relaxation of the excretories into the inteſtines; and of courſe a ſudden ruſh of humours into them, while the ſolids either unable of themſelves to recover their tone, or by the irritation of the humours are thrown into theſe violent ſpaſmodic contractions that produce theſe exquiſite wringing pains felt in that diſeaſe.——That theſe pains are of the ſpaſmodic kind, is evident from the low ſunk pulſe and the cold clammy ſweats that attend them.

digeſtible, and to be thrown off by ſtool †. The rarity of the aliments there is ſo great, until they approach the lower end of the Ilium, that one conſiderable portion of that tube has obtaind the name of the Iejunum, becauſe of the very inconſiderable figure our food always makes in that ſtage of its progreſs along the canal.

This immunity of the ſmall guts, from any ſenſible degree of that febrile inflammation which conſtitutes the diſtemper we treat of, renders it not ſo obvious how the ſtomach and bile ſhould be ſo immediately and ſo ſenſibly affected by it, which lie ſtill more remote from, and are ſeemingly leſs connected with the ſeat of the diſeaſe, at the upper end of that long canal; by which medium one would think they muſt be drawn into ſympathy.

This together with the inflammed apthous, and even ulcerated ſtate of the fauces, frequently to be met with in advanced ſtages of the moſt violent Dyſenteries, has made ſome conclude that the inflammation has been propogated from end to end of the canal; but the acute nature of any inflammation, either in the ſmall guts or in the ſtomach convince us,

† This is a phenomenon that has never hitherto been ſufficiently accounted for by phyſiologiſts. The matter is certainly worthy of attentive diſquiſition.

us, that cannot be the caſe. To explain this phenomenon, therefore, it is neceſſary to obſerve, that in moſt febrile diſorders of any violence, the ſtomach having a very intimate connection and ſympathy with the head and heart, by means of its abundance of exceedingly ſenſible nerves, particularly that delicate plexus about its upper orifice, is often violently diſordered when the other bowels are not ſenſibly affected. For this reaſon, ſome whimſical Phyſiologiſts, in former times enthroned Archeus at the upper orifice of the ſtomach, like Ariadne in the centre of her web, to make a ſally from her garriſon when neceſſary, and raiſe tumults in the ſtomach, for the ſafety of the general œconomy, and the expelling of its enemys *. Again, when I ſaid that the ſmall guts did rarely partake of this diſorder, it was limited only to that inflammation which characteriſes the Dyſentery; for the propulſive power of forcing along the Chyle and its recrements, or the periſtaltic motion, being greatly weakend by this inflammation (to

* This, like many other of VanHelmonts ſingularies, is not ſo abſurd and groundleſs, as ſome modern phyſiologiſts may inſtantaneouſly pronounce.—That great man has often injured the credit of his own deep penetration, by giving a fanciful perſonality to the various natural powers of the animal frame; in imitation of the metaphorical genius of the ancients, who aſſigned a ſpecies of divine perſonality, not only to every virtue or vice, but to every ſecret power in nature.

(to be more particularly noticed afterwards) and ſometimes even reverſed; this of itſelf not being attended with much local pain, diſcovers itſelf only by its effects upon the ſtomach, for the above mentioned reaſon of its extreme ſenſibility. But a little attention to anatomy will convince every perſon of ſkill, that there is ſtill a more immediate cauſe than any of theſe, by which the influence of this diſtemper is directly tranſmitted to the liver and ſtomach. The bile is an humour which, ſooner than any in the body, is ſuſceptible of a putrid taint. All the vitiated matter, which is reabſorbed after it is diſcharged by the diſeaſe into the lower guts, is carried directly into the inferior meſeraic or internal Hermorhoidal Vein, and from thence, by the Vena Portarum, into the liver. From this tainted blood it is that the liver ſecretes its bile: and this is the true reaſon why the bile, upon diſſection of ſuch as die of this diſeaſe, is always found in a vitiated ſtate, when frequently the ſmall guts are little altered from their natural ſtate, further than being unduly inflated with elaſtic effluvia. It is no wonder then that from this cauſe ſolely, though there exiſted no other, the ſtomach ſhould be conſtantly in a ſickly ſtate during the courſe of this

this diſeaſe. It is obſervable, that both the ſtools of dyſenteric patients, and what is thrown up by vomit, are frequently bilous of different degrees of dyes, darker than the natural colour of the bile †.

There is one obſervation which ſeems to argue, that the corrupted ſtate of the bile ſhould rather be ranked among the cauſes than among the effects of this diſeaſe. It is, that when the Dyſentery is epidemic, it is not uncommon for people who eſcape the Dyſentery itſelf, to have their ſtools altered from their natural colour to ſometimes a greeniſh hue, as if they had eaten much herbs; ſometimes of a clay colour, and ſometimes quite blackiſh, as if they had eaten a quantity of blood. But as diſeaſes ariſing from the irritation of the bile in the Primæ Viæ, generally manifeſt themſelves by acute pains in the ſtomach and

† There ſeems to be an univerſal conſent among ancients and moderns in fixing upon vitiated bile, or a vitiated ſecretion of it, as a leading cauſe (a leading ſymptom it undoubtedly is) of all autumnal, putrid remittent, intermittent, &c. diſeaſes of a malignant type. Numberleſs modern obſervations and treatiſes on the diſeaſes of hot climates, all ſettle on this. But few have attempted to explain how, or why, ſuch climates ſhould have ſuch a ſeeming direct and primary influence upon the liver, its connexions and ſecretions.

If the diſtinction I have made of the three ſurfaces below in page and of their ſubſervience to each other does not throw ſome light into that ſubject, I own I do not know how, otherwiſe to account for it.—It is certain that by continued great degrees of heat the conſtitution is unaccuſtomed to, beſides relaxing the ſolids and rendering the circulation languid in general by increaſing the perſpiration exceſſivly, both the action and ſecretions of the inteſtines are remarkably retarded, which circumſtances cannot fail of affecting the liver and its ſecretions, elaborated from the returning venous blood of the inteſtines.

and ſmall guts, as witneſs Dr. Huxham's accurate hiſtory of the Devonſhire Cholic, &c. and as theſe diſcoloured paſſages frequently happen to people in the epidemic ſeaſon of this diſeaſe, without any ſenſible uneaſineſs, it ſeems to argue that there is a vice in the ſecretion, that the bile has loſt ſome of its ſaponaceous quality, and is become more effete as to its virtue of changing and being changed by the aliments into good Chyle, which is not inconſiſtent with its being more putreſcent: It ſeems likewiſe to indicate an alteration in the venous blood carried into the liver from the great guts by ſome degree of ſtagnation and vitiation there, though it has not arrived at an inflammatory height.

Of the Cause of the Dysentery.

THIS is an enquiry which has excited the curioſiy of many; and people's conjectures about the cauſe of the Dyſentery are very various. The vulgar notion is, that it is produced by the abuſe of ſummer and autumnal fruits, or by crude Chyle generated from the exceſſive uſe of flatulent roots, particularly potatoes, which are rendered ſo common of late by their eaſy and quick propagation. But I cannot acquieſce in either of

of theſe cauſes, becauſe in fact almoſt all vegetable food, as it is aſceſent, rather repels than promotes any diſorder which tends to putreſcency. An abuſe of luſcious ſweet fruits may ſometimes prove the proper cauſe of a Diarrhea, but ſcarcely of a Dyſentery, otherwiſe than as a Diarrhea may be the immediate occaſion of exciting a latent prediſpoſition to the Dyſentery. A ſurfeit of very ſharp or very cold fruits will immediately produce a very dangerous Cholic or iliac Paſſion; their coldneſs immediately ſhutting the orifices of the veſſels, both imbibing and excretory, which open into the ſtomach and ſmall guts; by which means the aſcent of the Chyle is ſtopped, and the ultimate arterial veſſels become firſt obſtructed and then inflamed, ſo that the Chyle can neither recover its paſſage, nor the excretories unload themſelves into the cavity. Here matters ariſe to a critical ſituation all at once, and a deciſion of the iſſue in death or recovery frequently depends on a few hours: but we have no evidence nor ground of preſumption, that cooling vegetable juices, when taken into the blood, diſpoſe it to any kind of inflammation or febrile diſorder.

Again, when people attribute this, or any other diſeaſe, to the nature of the ſeaſon or

weather, they generally found their preſumption upon two miſtakes: Firſt, in imagining it is owing to ſome ſecret venomous or infectious effluvia in the air, conveyed from thence into the blood; and ſecondly, in apprehending that diſeaſes, impreſſed by the air, are merely the effect of the ſeaſon in which they appear.

In order then to aſcertain the nature and cauſe of this diſeaſe a little more preciſely, let us make two obſervations. The firſt is, that generally ſpeaking, the topical diſeaſes, which are moſt epidemic in the ſpring, are diſorders or obſtructions of the breaſt, and of thoſe parts which are more immediately connected with the organs of reſpiration; colds, coughs, pleuriſies, peripneumonies, pleuroperipneumonies, &c. whereas the topical diſeaſes in autumn are generally thoſe of the chylopoetic viſcera, ſuch as cholics, choleras, diarrheas, dyſenteries, &c.

The ſecond obſervation is, that all ſpring diſeaſes are of an inflammatory nature, with a remarkably firm and ſizy Craſſamentum of the blood: for this reaſon, vernal diſeaſes bear large and reiterated evacuations with advantage, for moſt part, both to the ſpirits, and to the reſolution of the diſeaſe. On the contrary,

contrary, in autumnal diſeaſes, eſpec ially af ter very hot ſummers, the texture of the red blood is more lax, and tending to diſſolution: if any ſizineſs appears in it at all, the pellicle is thin, of a dark blue, or appears here and there only in ſtreaks upon the ſurface; but as frequently it exhibites no appearance of pellicle at all, being florid and ſoft upon the ſurface, blackiſh below, and tending to diſſolve at the bottom, like a ſediment in the ſerum *. Even the fevers which are not topical, and agues in the ſpring, are attended with ſizy blood; whereas thoſe of autumn are much leſs, if at all ſo; and both the fevers and agues of the latter ſeaſon are tainted with a kind of malignancy not to be obſerved in ſpring diſeaſes.

Here are then two leading phenomena preſented to us, wherein vernal and autumnal epidemic diſeaſes differ; one reſpecting their ſeat, the other the ſtate of the fluids.

As to the former; in winter the fluids are more condenſed; their heat is then properly innate, preſerved by, and proportioned to, the progreſſive motion of the blood; the circulation is more vigorus; the ſolids are better braced; the pores of the ſkin are more con-

 tracted;

* This ſtate of the blood is particularly taken notice of by Sir John Pringle.

tracted ; and the perſpiration is not ſo large: in proportion to the decreaſe of the perſpiration, there is an increaſed ſecretion by the urinary paſſages and the veſſels of the inteſtines, the ſtools are larger and more diſolved; digeſtion is performed more cleverly, and freſh repairs of food are demanded in larger quantity, and by a more craving appetite.

The reverſe of all this happens in ſummer; the fluids become more expanded and relaxed in their ſtructure ; they acquire an increaſed degree of inteſtine motion from the heat of the ſeaſon ; their progreſſive motion grows more ſluggiſh ; the pores of the ſkin are more relaxed and patulous, and the perſpiration of courſe is greater ; the ſolids are leſs vigorous and elaſtic ; the ſecretions by the urinary paſſages and primæ viæ are abated ; and the action of the inteſtines upon their contents is more inert.

Nature habituating our bodies to theſe changes, it becomes a part of our conſtitution to obtemporate them.

For a further illuſtration, I ſhall take the liberty to divide the body into three ſurfaces, a diſtinction very neceſſary upon this ſubject, and abundantly natural and obvious when it is made. Firſt, the external ſurface of the

ſkin,

ſkin, which I have obſerved undergoes very ſenſible variations in relation to its perſpiration; ſecondly, the ſurface of the lungs, trachea, mouth and noſe, with the cavities belonging to it. This ſurface is even ſuperior in extent to the ſurface of the ſkin: to it alſo the air has regular acceſs by reſpiration, and from it is conſtantly exhaled a large quantity of perſpirable effluvia. Thirdly, the ſurface of the inteſtines, to which no air has exceſs, ſave ſo much as is carried down with the aliments. This ſurface alſo is plentifully irrigated with moiſture from its excretories, which is all diſpoſed of in diluting the Chyle and its recrements, lubricating the ſurface of the canal theſe paſs along, or by reabſorption into imbibing venous capillaries.

In the ſpring, when all nature becomes more animated, our fluids grow more active, volatile, and inflated in that degree which cheriſhes the ſpirits without relaxing the ſolids: the circulation alſo is increaſed in its courſe towards the perſpiratory pores on the ſurface of the body, and of the lungs, with the other appendages of that continuation.

Tho' this is the general tendency and effect of the ſpring ſeaſon, changing from cold to hot, yet both the ſpring and autumn, being

in a manner the criſes of our extremes of cold and hot, they are frequently very turbulent and unequal, and have the extremes of both ſolſtices many times in ſuch immediate ſucceſſion, as expoſes our bodies much to hurtful impreſſions by ſuch ſudden changes. The weather then is often a ſucceſſive jumble of hot and cold, wet and dry, tempeſt and calm. Theſe ſeaſons vibrate like the needle before it arrives at the fixing point, or like the ſcales of a ballance before they poize themſelves. However, it is to be obſerved, that each equinox partakes predominantly of the ſolſtice preceding it: it is on this account, that our bodies are then ſo ſubject two ſudden obſtructions, and to epidemic diſorders of courſe.

The two ſurfaces of the lungs and inteſtines being to the ſurface of the ſkin, in a manner like two ſeconds to a principal, aſſiſting and relieving it, in accommodating its perſpiration to the ſeaſons; whenever any ſudden change gives a damp to the perſpiration, from our exterior ſurface in the ſpring, the current is turned upon the other perſpiratory ſurface, and the reniſus is immediately felt there. The fluids then increaſing in their mobility and diſpoſition, to exhale where they can eſcape, do not ſo readily, upon a check

check of cutaneous perſpiration, fall back upon that internal ſurface from which the air is excluded. This increaſing heat and activity of the fluids in ſpring, is the reaſon why we feel cold more ſenſibly then than in the rigour of winter.

In autumn again, all the above circumſtances are reverſed, the blood begins to retreat towards the internal ſurface of the bowels, and the kidneys, and its defecations increaſing by theſe excretions, any obſtruction of perſpiration then recoils directly upon the inteſtines. This idea of the origin and cauſe of the ſeat of the Dyſentery ſeems alſo to argue, I confeſs, that, for the ſame reaſons, the kidneys and urinary paſſages ſhould be ſubject to autumnal obſtructions and inflammations; which yet I cannot take upon me to aſſert from ſufficient obſervation. I have, indeed, obſerved of late, that ſeveral perſons ſubject to graveliſh complaints had very ſevere paroxiſms of them in autumn; as alſo that, when the Dyſentery was epidemic, Dyſurias, and ſometimes total obſtructions of urine, were to be met with, not only among patients ill of the Dyſentery (which may be explained by the affinity of the Sphincter of the bladder, with the Rectum) but in other fe-

brile diſorders, and even as a diſeaſe by itſelf. But the kidneys cannot ſo readly be the ſeat of any epidemic inflammation, if we conſider they are not ſo properly a ſurface as the inteſtines; they are not ſo lax in their texture and looſe in their ſituation, but on the contrary much more compact and firmly placed; neither have the fluids in them ſo ſhort a courſe to their excretories and returning veins as in the inteſtines; add to all this, that their excretories are proportionably much fewer than thoſe of the inteſtines: all theſe circumſtances are much in their favour, and wiſely eſtabliſhed by the author of our frame. Nor are there leſs obvious reaſons, as has been already obſerved, why the ſtomach and ſmall guts cannot ſo readily be the ordinary ſeat of this epidemic inflammation. In ſhort, providence ſeems wiſely to have provided for the greater ſafety of our frame, in giving a degree of weakneſs to the lower inteſtines, beyond any internal organ of excretion, for admitting of that particular obſtruction and inflammation which conſtitutes this diſeaſe.

Of the State of the Fluids.

I Have already obſerved, that when people talk of unhealthy ſeaſons, they generally mean no more by it than the ſtate of the air at that time; whereas, in fact it is always the ſeaſon preceding that in which epidemics appear, to which they are primarily owing. The turbulence or variouſneſs of the equinoxes, indeed, has the immediate effect of rouſing the ſeeds of thoſe diſeaſes latent in the blood, by the ſudden, and at the ſame time often inſenſible, checks it gives to the perſpiration; but it is the preceding heat of ſummer, or degree of cold in winter, which determins the ſeat, and the violence or mildneſs of theſe epidemic diſorders. If the winter has been very cold and clear, the red blood will be rendered more firm and leſs ſeparable into its conſtituent fluid particles, and they leſs inflated into that volatility, which is requiſite to encreaſe perſpiration, when the ſeaſon begins to turn the ſcale in its favour; whence ariſe obſtructions in the membranes, and parts belonging to, and connected with, the ſurface of the lungs, &c. with tenacious ſizy blood.

If

If the ſummer has been exceſſively hot, and more eſpecially if it has been moiſt at the ſame time, the blood and fluids are more rarified thereby; their conſiſtency is rendered weaker, and their volatility greater: in other words, the blood then has a greater degree of ſolubility, or tendency to putrefaction. I ſhall explain how theſe come to be ſynonymous terms.

Every chemiſt knows that putrefaction is generated in bodies, ſuceptible of it, by inteſtine motion, without progreſſive motion of the fluids. The heat of ſummer increaſes always, in ſome degree, that kind of inteſtine motion in our fluids, and thereby impairs the velocity and momentum of their progreſſive motion. For this plain reaſon, the blood has generally more of a tendency to diſſolution, than to any high degree of that ſizineſs, which is commonly denominated inflammatory, in autumnal diſeaſes; and, on that account, autumnal diſeaſes do not bear evacuations ſo well as vernal epidemics generally do. The due craſis of the blood being more or leſs reſolved, it does not exert a proper reaction upon the ſolids or nerves; or (if I may be allowed to preſume that the ultimate fibres are veſſels) it does not ſo powerfully ſupply them with that fluid which is neceſſary

to

to brace them, and render their action ſufficiently ſteady; therefore the ſpirits are generally much affected, or impared in the diſeaſes of that ſeaſon.

If this brief attempt to account for, and render intelligible ſomething of the genius and nature of ſpring and autumnal epidemics in general, and of the Dyſentery in particular, is juſt, I hope more accuracy and penetration will enable diligent obſervers to account for any variations, or particular circumſtances in caſes which may ſeem to redargue any part of the above doctrine, or rather explanation of facts.

To account then for the prevalency of the Dyſentery at Newcaſtle in the autumns 1753, and 1759, we need only obſerve, that both the ſummers preceding them were uncommonly hot, and the intermediate winter preternaturally mild. In fact, the blood was more diſſolved in the laſt of theſe autumns than it was in the former one. Generally ſpeaking, when it had any ſizineſs at all, which as often it had not, it was ſuch as above deſcribed; for which reaſon, the diſeaſe did not bear blood-letting ſo freely as it did the former ſeaſon: the blood had undergone the ferment of two ſucceſſive very hot ſummers; and the intermediate winter was ſo exceeding-

ly

ly mild, that it had never regained that denſity which it acquires in a moderately ſharp winter.

This diſeaſe, like all epidemics, is comparing numbers with numbers, more frequent in cities and towns than in the country: among the feeble than among the ſtrong, though, for a plain reaſon, when the latter are attacked by it, their danger is greater; it is alſo more frequent among the poor and labourers, than among the wealthy, and thoſe who live better and pay more attention to their health.

Indigence, but much more eſpecially negligence in the article of cooling after heats by labour, exerciſe, &c. expoſes the lower claſs of people prodigiouſly to this and many other diſeaſes,

If there is any difference as to the article of food in promoting autumnal diſeaſes, I am inclined to think the ballance is in favour of the poor; a vegetable diet tending leſs to putrefaction than an animal one does: it is not without deſign, that nature produces ſo many cooling fruits and vegetables for our uſe in the hot ſeaſon.

The quantity of food taken at a time has ever done incomparably more hurt in promoting

moting diſeaſes than ever the quality of it did. In this article alſo, the poorer people have it much in their favour; their diet does not generally invite them to ſurfeit; and if they are ſometimes betrayed by a keen appetite to overcharge themſelves, they are obliged to the bleſſing of hard labour for the throwing off of the ſuperfluities. Labour, and not lazineſs, is the beſt antidote for ſuch exceſſes.

Of the Cure of the Dysentery.

THE prophylactic part of medicine, in relation to this diſeaſe, may eaſily be collected from the hiſtory of it: but that branch of medicine will never be ſo much attended to as it ought, for an obvious reaſon.

I have already claſſed this diſeaſe among the febrile ones. The permanent concominant complaints attending it after it is formed are, conſtant fever, drought, parchedneſs of the mouth and throat, dejection of the ſpirits, proſtration of the ſtrength, ſickneſs at the ſtomach, frequent viſcid, acid, or bilious vomiting, flatulency in the belly, wringing pain in the lower part of it, and often in the ſame region of the back; theſe pains ſometimes

times conſtant but always preceding ſtools; an almoſt conſtant preſſing to ſtool, with great pain and irreſiſtible tendency to it at the ſame time, called a Teneſmus; the ſtools generally bloody or brine coloured, always ſlimy, and full of glary ſtuff, ſometimes mixed with a whitiſh matter of leſs tenacity, which appears in ſeparate little curdled-like parcels, often with blackiſh corrupted-like bile; the ſtools always odiouſly fetid*; they are ſeldom natural without the aſſiſtance of purgatives, and then they are often diſcharged in hard, dry, little lumps; dryneſs of the ſkin, except when clammy, unbenign ſweats are raiſed by the intenſneſs of the gripings and teneſmus; great watchfulneſs, their ſleep, when they accidentally drop into any, being ſhort and broken, with recurring pains which awake them unrefreſhed. Theſe are the principal ſymptoms which atend a true febrile Dyſentery. When ſuch a diſeaſe is epidemic there are many ſlight appearances of it, which happily do not extend to all theſe complaints, and which eaſily yield to proper applications.

The

* Febrile heat naturally produces this effect, though, perhaps not in the ſame degree, at any other time.

The ſigns of danger in this diſeaſe are, the violence with which all the above ſymptoms appear: but the ſigns of immediate danger are, decreaſe of pain, great ſinking of the ſpirits, lowneſs of the pulſe, beginning coldneſs of the extremities, parchedneſs and blackneſs of the tongue, apthæ, white ſcurf or ulceration of the throat and fauces, and conſtant hiccup.

When there is a ceſſation of pain, intolerably fetid and unvoluntary ſtools, ſhiverings, with ſometimes a ſenſe of coldneſs in the belly, a ſlight delirium, and often unaccountable fits of agony, or rather anxiety; then the caſe is beyond remedy, and the patient haſtens to diſſolution. This ſtage of the diſeaſe is generally attended with a ſmall obſcure pulſe and cold clammy extremities, but I have ſeen it in ſome particular caſes otherwiſe.

It has been already obſerved, that this diſeaſe ought to be regarded as a fever as well as a topical inflammation: as ſuch it requires the uſe of every medicine proper in autumnal fevers which is not contrary to the diſeaſe as a flux; ſuch as bleeding, diluters, cordials, perſpiratives, nay even ſometimes bliſters (I do not mean the unmerciful abuſe of them) may be neceſſary.

As

As a Dyſentery, it demands vomits, purgatives, emollient balſamic incraſſants, perſpiratives, anodynes, antiſeptics.

The ſimple and proper method of treating this diſeaſe, will appear more plainly by ſurveying the three general indications of cure; which are,

1ſt, To allay the fever and reſolve the inflammation.

2dly, To reſiſt the tendency to putrefaction in the fluids.

3dly, To ſupport and promote the periſtaltic motion of the inteſtines.

As to the firſt, bleeding, if it be early, is generally both neceſſary and uſeful in this diſeaſe, and it may be repeated with benefit if the fever is high, the pulſe full, the blood ſizy, and the patients conſtitution otherwiſe good: but repeated bleeding is by no means ſafe when the ſymptoms of the Dyſentery are violent: if the patient is weak, the ſpirits depreſſed, the pulſe not ſtrong, and the craſſamentum or red blood florid and ſoft, bleeding is to be uſed with caution*.

Diluting,

* This is expreſſly, the opinion of Sir J. Pringle.

Diluting, incraſſating, mucilaginous drinks are proper and neceſſary, both for allaying the febrile heat, and for blunting and ſheathing any vicious acrimony in the fluids* ; thereby rendering their irritation upon the tender, inflamed, excoriated parts leſs affecting. For if balſamics adminiſtered internally are the proper medicines for relieving the lungs, pleura, kidneys, bladder, &c. why ought they not to be of the ſame conſequence in inflammatory diſeaſes of the lower guts ; for in all the guts the blood runs a ſhorter courſe to the excretories and returning veins than almoſt any where elſe. The ſame claſs of medicines are the moſt proper topical applications, by way of fomentation, to the diſeaſed parts, and are highly anodyne,

 becauſe

---

* Putridity is much ſpoken of, and alſo referred to, as a cauſe of malignant autumnal diſeaſes. That may ſometimes be, though I cannot think that it is generally the caſe. I have no doubt but that in autumn the blood is in a condition to be, upon any accidental cold, obſtruction, or, &c. more ſuſceptible of ſuch a change: but I much queſtion if, generally ſpeaking, ſuch malignity previouſly exiſts, as a cauſe of ſuch febrile diſeaſes.

The true pultreſcent Scurvey, ſeems to be that diſeaſe which is the native product of putreſcency, left to its own tendency, and unmodified by any of theſe cauſes, that excite fevers. But generally ſpeaking, it is the fever that generates the actual putreſcency of the fluids.—In the dyſentery, this corruption is augmented by the reabſorption of the putrified humours diſcharged from the ſore parts of the rectum, and ſtagnating there.——I think Dr. Zimmerman cenſures his countryman too ſeverely, nay without reaſon, for recommending chicken water as a proper drink in the in dyſentery. The danger of it as an animaliſed liquor, is rather ideal ; and it poſſeſſes the properties of being ſmooth, not flatulent and of eaſy abſorption; and it can be eaſily and well corrected by ſuch mild aromatics mixed with it, as parſley, carraway ſeeds, or, &c.

becauſe of their viſcous lubricating quality. Theſe intentions are excellently anſwered by drink, and glyſters compoſed of milk and water boiled, decoctions and infuſions of rice, lintſeed, roots of Althea, ſolutions of ſtarch, gum arabic, &c.

As glyſters in this diſeaſe are of conſiderable conſequence, and are always intended for topical applications and fomentations, three circumſtances are neceſſary to be attended to in the adminiſtration of them. 1. That they be repeated frequently through the day. 2. That they be always injected immediately after a ſtool. 3. And that they be given in ſmaller quantity than is ordinary in other caſes; by which means they have all the chances of being retained as long as poſſible. To increaſe the anodyne quality of the glyſters, it is proper to add ſome gutts of the tinct. thebaic. to them, or to infuſe a ſufficient proportion of white poppy heads along with the other materials. Upon the decline of the diſeaſe, when natural, though diſſolved, ſtools are regularly diſcharged. Then, and not till then, it is proper that the glyſters be gently aſtringent with ſome balſam of the ſame nature diſſolved in them, for healing the ulcerated parts, and bracing the relaxed

relaxed ones: but the inflammation ought to be intirely ſubdued before ſuch be uſed, except in the following caſe, where the greater evil muſt be obviated.

If the ſigns of inflammation are great, the ſymptoms bad, and any tendency to a mortification to be apprehended and obviated; recourſe muſt be had to antiſeptics, both internally and by glyſter. One of the moſt ſimple and efficacious is ſtrong camomile tea*, the good effects of which in this diſeaſe I can atteſt. Where, indeed the danger of a mortification is apprehended from large, high, or acute inflammations (as in cholics or the iliac paſſion, pleuriſies, &c.) with a buffy tenacious ſtate of the blood, the uſe of warming antiſeptics is like throwing oil into the fire: but where the mortification is dreaded from the putreſcent ſtate of the inflamed part, and its humours, or from a general tendency to ſolution in the fluids, then the warning antiſeptics are ſtrongly indicated†. In ſuch caſes, I have

* This is particularly recommended by Sir J. Pringle.

† Dr. Zimmerman ſeems to be without cauſe, prejudiced againſt Aromatics and againſt his countryman, for recommending them in this diſeaſe.—In the firſt intention as encreaſing febrile heat, they may be ſuppoſed to be contraindicated; but in the ſecondrary intention as alexipharmic and antiſceptic, promoting the progreſſive motion of the blood and reining its inteſtine putreſcent motion and tendency, Aromatics are, under proper regulations highly neceſſary and uſeful.

always judged, what in extremity muſt be our laſt reſourſe, ought to be our firſt, and therefore, I conſtantly have applied to the Peruvian bark with ſuch ſucceſs in very bad caſes as gives me confidence to recommend it. Its importance does not ariſe from its topical ſtypticity, which, in my opinion, is contra-indicated in this diſeaſe; but neceſſity has no law, and that inconvenience is richly attoned for by its ſuperlative antiſceptic quality of reſiſting putrefaction, and of ſupporting and reſtoring the natural and vital tone of the ſolids and the craſis of the fluids throughout the whole extent of the ſyſtem. In proportion to the danger and urgency of the ſymptoms, antiſeptics may be exhibited, more concentrated, or more diluted with mucilaginous balſamic emollients in draughts, or the like. In this diſeaſe I have generally added as much rhubarb in decoction with the bark, as I thought would correct its topical aſtringency. It will appear more fully afterwards, that aſtringents, as ſuch, are very hurtful in this diſeaſe in particular, as they are quite improper in inflammations in general.

The ſecond general intention of cure, is to reſiſt the febrile tendency to putrefaction in the fluids, which is ſo much the more to be

attended

attended to in this autumnal diſeaſe, as it is fed by a conſtant reabſorption into the inteſtinal veins of the great guts, of putrid ſtuff diſcharged from the ſeat of the diſeaſe. It has been explained in what manner the bile is vitiated by this diſeaſe; and as no humour in the body is ſooner vitiated than bile, ſo no humour diſſolves the blood more than bile, eſpecially if it acquires any putrid taint.

This indication of cure I have in ſome meaſure anticipated by what is already ſaid of the danger of a mortification in the ſeat of the diſeaſe. But I would not have any to preſume, that a mortification happens there only and ſimply from the high degree of topical inflammation, and not from the putreſcent nature of the diſeaſe, or that there is no danger of a diſeaſe proving fatal from the bad ſtate of the fluids, without an actual mortification of the diſeaſed part; neither, that a mortification cannot happen any where in this diſeaſe, ſave in the inflamed great guts. The two following caſes ſhew the contrary.

In the month of September laſt, a healthy young man, in the country near the coaſt, was taken violently ill of the Dyſentery, attended with a great depreſſion of ſpirits. He was

treated in the manner recommended by this eſſay; only, as the ſymptoms did not ſeem ſo urgent as to demand the cortex, it was not not given. His dyſenteric complains gradually abated, and his ſtools became natural, though liquid; only there remained a great dejection of his ſpirits and ſtrength. In a few days, after the abatement of his dyſenteric ſymptoms, he was ſeized with the appearance of a tertian intermittent, which was not much regarded for two or three paroxiſms, until, in one of them, he was ſeized with an intolerale anxiety and faintneſs, which occaſioned the phyſician to be called again. When he was viſited, about twelve hours after the acceſs of this paroxiſm, his extremities and face were quite cold and damp, and he was affected with a ſlight delirium: at that time he had two natural, but liquid ſtools, only of a more rediſh brown colour than common. He had no ſigns of mortification in the guts, as both the ſtools were voluntarily; he even roſe out of bed to paſs them. He died in ſome hours after.

In the ſame month, a middle-aged, luſty, tolerably healthy woman, a widow, who had been for between two and three weeks very ill of the Dyſentery, and not much purged by

by medicines during that time, was ſeized with violent deep-ſeated tendinous-like pains in her feet and legs, particularly in one of them, which was at the ſame time cold and benumbed to the touch. The uſe of the Decoct. Serpentar. compoſit. Pharm. Edinb. was immediately ordered internally, and ſtrong aromatic embrocations were applied to her leg and foot; however next day all her toes appeared gangrenous about the firſt joints; the gangrene was alſo ſpreading along the edge of her foot below the ſmall toe, and a broad livid ſpot appeared upon the roof of her foot, at the end of the great toe: her Dyſentery ſtill continued violent. A decoction of the bark, prepared as above, was immediately ordered for her, which ſhe continued to uſe for a long time; the gangrene was checked thereby, a ſlight inflammation appeared round the edges of the gangrenous parts, the livid ſpot on the roof of her foot changed firſt into a bright red, and then gradually into the natural colour of the ſkin. Her gripes and teneſmus gradually abated, and natural ſtools returned, without the aſſiſtance of any other purgatives or antidyſenteric medicines, except the rhubarb contained in the decoction of the bark. The

mortified parts ſeparated in ſeveral places as deep as the bone, and in the iſſue ſhe happily recovered, though ſlowly. It is worth noticing, that, notwithſtanding the low ſtate to which ſhe was reduced before ſhe began the uſe of the decoction, yet, during the uſe of it, ſhe had ſeveral irregular appearances of the menſes*. But to return,

As I apprehend, that the reſiſting of any tendency of the blood to ſolution is always indicated in this diſeaſe, when, perhaps, the abſolute neceſſity of the bark is not; the moſt proper medicines to anſwer that end are diaphoretics and ſudorifics. Their propriety is ſo much the greater in this diſtemper, as the diſcharges by the ſkin give the moſt immediate check of any to the dyſenteric complaints; which, to me, is no ſmall confirmation of the cauſe of it, as already explained. Therefore, in the beginning of the diſeaſe, while the pulſe is full and firm, the fever ſharp and the ſenſe of heat great, Sp. Minderei perfectly neutraliſed, and given in evening draughts to the quantity of two or three drachms, is as efficacious as any medicine in promoting a diaphoreſis or even a gentle ſweat. But the diaphoretics

* This is the caſe Dr. Zimmerman has extracted verbatim from this Eſſay, without acknowledging to his readers he had ever ſeen ſuch a treatiſe on the ſubject of the dyſentery.

diaphoretics I principally point at, are thoſe which are alſo called alexipharmics, cardiacs, or antiſeptics: of theſe there are a great many, both ſimple and compounded, which may be exhibited in the forms of drinks, draughts, juleps, bolus's, &c. As it is allowed by the univerſal conſent of phyſicians, that the pores of the ſkin are the moſt certain paſſage of any emunctory in the body for diſcharging any morbific or vitiated matter in the fluids; and as the criſes of all febrile diſeaſes are tried to be promoted by a profuſe diaphoreſis, there are the ſtrongeſt indications for promoting it in this diſeaſe, both becauſe it is a fever, and on account of the vitiated tendency of the blood.

All aromatic and ſtimulating medicines, by their proper action in the animal fluids, while they remain unaſſimilated, reſiſt the tendency to ſolution in the particles they are immediately contigious to, probably by the impreſſion they make upon the exterior ſurface of the animal particles, reining that internal action which reſolves and breaks them†. The more tenacious ſuch medicines are

† Where the natural heat of the blood is encreaſed, as it is in all febrile diſorders reaſon at firſt view muſt prejudice cautious practitioners againſt Aromatics and warming medicines; but where there is a remarkable

are of their natural quality, and the longer they continue unanimalized (if I may be allowed to uſe the term) or unaſſimilated, the more permanent will their effects be; for which *reaſon*, *cæteris paribus*, I would always for example, prefer ſnakeroot, or any ſuch vegetable aromatic, to caſtor; and camphire, nay even ſpirituous liquors, to alkaline ſalts or ſpirits. I am apt to believe, that the extraordinary efficacy of the Peruvian bark is, in ſome meaſure, owing to its being long tenacious of its form in the circulation, and conſequently of its proper action upon the ſolids and fluids; for whenever any ſubſtances are thoroughly aſſimilated, they loſe their virtues as a medicine; and it will be admitted as a maxim in general, that vegetable ſubſtances are not ſo eaſily ſubdued and robbed of their native virtues as animal ones are.

There is another more confeſſed and obvious effect, which warming medicines have in reſiſting any tendency to ſolution in the

---

remarkable tendency to putreſcency or diſſolution of the blood, ſecond thoughts will inculcate the neceſſity of applying to them. But at the ſame time I muſt add that the preſent mode of calling almoſt every plain common fever *putrid*, has introduced into too general practiſe a very great miſapplication both of warning medicines and of bliſters among inferiour practitioners, miſled by the abundance of what has been wrote of late upon putrid diſeaſes.

the animal fluids: they rouſe and irritate that active principle in the nerves ultimate fibrils or ſolids, which promotes the circulation or progreſſive motion of the blood; the relaxation of which gives occaſion in a great meaſure to that encreaſed inteſtine motion which tends to reſolve it. It is with great judgment and propriety therefore, that Dr. Huxham claſſes the abuſe of (a moſt valuable medicine when uſed with propriety, namely) the hot or tepid bath in eaſtern and ſouthern climates, among the procatartic cauſes of malignant fevers.

The third intention of cure in this diſeaſe, is to ſupport and promote the periſtaltic motion, or that action of the inteſtines which carries the food and its recrements regularly from beginning to end of the alimentary canal, and thereby promotes the regular diſcharge of natural ſtools. It may appear ſtrange, that this ſhould be pitched upon as an indication of cure in a diſeaſe which goes by the name of a flux: but it is certainly a principal one; and, if it is neglected as ſuch, it may not unfrequently prove of fatal conſequence, in caſes which would not otherwiſe be dangerous, if it was duly attended to.

While

While the great guts are inflamed, inſtead of that natural, regular, alternate contraction and dilatation of the muſcular coat and fibres of theſe inteſtines, their inflammation, and the irritation of the putrid extravaſated humours, keeps them in an almoſt continual ſtate of wringing painful contraction: this conſtant niſus to contraction in the fibres of theſe inteſtines, and that ſwelling or thickening of their coats, which is inſeparable from their inflammation, contracts their cavity, ſhuts up, or in a great meaſure ſtraitens, the acceſs of the natural feces into the great guts; and likewiſe ſuppreſſes, nay even ſometimes reverſes, that periſtaltic motion which is the cauſe of their natural deſcent; for when that action is not obtemporated from end to end, it languiſhes in the ſound parts; and if the inflammation is very violent, it is even reverſed; a remarkable example of which I once met with upon being firſt called to a dyſenteric patient, who had the ſame reachings and rejections by the mouth which are to be met with in the moſt violent iliac paſſions, and who died in thirty-ſix hours after. We have an illuſtration of the truth of this, in what happens to the muſcles upon ſtrains, bruiſes, or inflammations in any part of them. The whole

whole muſcle remains in an active partially paralytic, ſtate; but if the pain encreaſes to an intolerable acuteneſs, the muſcle is then often thrown into cramps and convulſive involuntary contractions.

The different degrees in which the periſtaltic motion is affected as above, according to the violence of the inflammation which conſtitutes the Dyſentery, is not a plauſible ſuppoſition, but is plainly indicated by the following ſymptoms: A total ſuppreſſion of natural diſcharges, while ſlimy bloody, fetid ſtools, are conſtantly urged off with great pain; the hardened knotty ſtate of the natural feces, when they are forced away by the aſſiſtance of purgatives: the conſtant tendency to reaching and vomiting in violent ſtates of the Dyſentery, occaſioned in a great meaſure by the bile being ſqueezed backward into the ſtomach, and irritating its increaſed ſenſibility, and the hiccup, which indeed, is the moſt dangerous ſymptom attending the inflammatory ſtate of the diſeaſe, and without which it rarely proves fatal.

There is another ſpecies of hiccup, which appears towards the decline of the diſeaſe when the inflammation is abated; this is not

ſo

ſo much to be dreaded as the former, though it is not without danger when neglected.

No medicine is ſo much calculated to promote the regular action and direction of the periſtaltic motion as the repeated uſe of gentle emetics and purgatives: though the action of vomiting itſelf is an inverſion of this motion, yet it is a moſt uſeful niſus to recover and forward it; for, at the ſame time that the ſtomach unloads itſelf by the mouth, it alſo forces part of its contents downward: its muſcular fibres encompaſs it in ſuch directions, that it cannot be thrown into violent action without rouſing the periſtaltic motion, and acting in its direction as well as upwards. There is another ſignal benefit derived from gentle emetics. The progreſſive motion of the blood, and its tranſmiſſion through its fineſt paſſages, is thereby greatly faciliated, and the pores of the ſkin are thereby opened, which is indiſpenſibly neceſſary in the cure of this diſeaſe; vomiting being one of the moſt certain and inſtantaneous diaphoretics in nature.

Purgatives are of no leſs importance than vomits; they rouſe and ſupport the periſtaltic motion; they contribute to diſlodge the indolent feces obſtructing the higher inteſtines; they

they ſolicit a diſcharge of fluids from the glands of theſe inteſtines, which by ſome degree of revulſion relieves the load, and weakens the morbic flux of humours upon the diſeaſed great guts: they ſcower off and diſcharge the morbid humours themſelves, which prevents their putrefying and noxious tendency from being encreaſed, by lodging too long in the cavity after they are diſcharged from the circulation: and after their opperation as purgatives, they leave ſuch a gentle bracing upon the veſſels as ſtrengthens their tone without ſhutting their orifices, which ſtrong aſtringents are apt to do. All theſe intentions are admirably anſwered by a proper continued adminſtration of ipecacuan. and rhubarb*.

Having taken a general view of the intentions of cure, and the medicines indicated, the proper application of them, upon which their utility in a great meaſure depends, is reducable to a very natural and ſimple plan. It is no uncommon thing in this, and ſuch other diſeaſes as admit of different indications of cure, to jumble medicines together of oppoſite natures and intentions, without much

* I ſhould readily ſubſcribe to the preference of liquid cooling purges, if ſtomachs conſtantly ſick and nauſeating can be made to admit and retain them as eaſily as a bolus or a few pills; but that I never found to be the caſe.

much judgement or order: opiates, purgatives, abſorbents, aſtringents, and alexipharmics, all in the ſame compoſition. But as we ought to follow nature in every thing as much as poſſible, the firſt and principal leſſon we are to copy from her in this diſeaſe, is to accommodate the adminſtration of medicines in it to the diviſion of time into day and night.

The day is for action, and, therefore, the proper ſeaſon for the operation of active medicines. After bleeding, therefore, as much as is ſafe, and as early in the diſeaſe as poſſible, and then giving a regular puke in the ordinary doſe, no day ought to paſs (unleſs ſome particular indication forbid it) without exhibiting alternately a moderate doſe of rhubarb, adding to it occaſionally ſome grains of calomel, and a ſmall doſe of ipecauan. from two to eight grains: this latter ſeldom fails to exite a litte ſalutary puking, as well as to operate by ſtool. There is not a more direct proof of the inertneſs of the periſtaltic motion, in the ſmall guts, than that the dejections procured by theſe medicines always (unleſs in caſes of very great inflammation) contain ſome natural feces while thoſe diſcharged by the diſeaſe ſeldom contain any: and while natural ſtools are procured by ſuch medicines, the caſe

caſe of the patient always admits of a favourable prognoſtic.

The moſt proper drinks, during this diſeaſe, are cooling mucilaginous decoctions, corrected gently with aromatics, rice water, oatmeal, gruel, lintſeed tea, decoctions of Althea, &c. qualified with a little cinnamon, mace, caraway ſeeds, or any other aromatic moſt agreeable to the patient. Both the flatulencies generated conſtantly in the bowels, and the of the blood, require theſe cordial correctors added to the ordinary drink. Where there is any ſuſpicion of a tendency to mortification, the moſt proper of all ordinary drinks is camomile tea, drunk in conſiderable quantity where the patient will comply with it: it is alſo in this caſe the beſt baſis of glyſters: if it is uſed freely there will be little uſe for cordial juleps or draught, excepting ſo far as they are made the vehicle of mucilaginous or unctuous medicines; which are both ſalutary for the blood and for the ſtate of the inteſtines in this diſtemper.

Again, nature having deſtined the night for reſt, and for a more profuſe perſpiration, the medicines exhibited in the evening ought to correſpond with theſe intentions. As much regard as poſſible ought to be paid to this

diſtinction in all diſeaſes, but in none can medicines be adapted to it with more propriety than in this.

Though anodynes contribute nothing, in the firſt inſtance, to the reſolution of an inflammation, and are highly improper in all acute inflammations, which border upon mortification by a fallacious ſuppreſſion of the ſenſe of that pain which is the index of the degree of danger; yet both reaſon and experience juſtify their uſe and importance in the cure of this particular inflammatory diſeaſe. Indeed they are very injudiciouſly adminiſtered, if they are given in ſuch quantity, or in ſuch repeated continuance, while the inflammation is high, as to force even as long a ſleep as one naturally enjoys at one time in health. This would be ſuppreſſing the ſenſe of pain ſo far, as really to accelerate a mortification. It is requiſite, therefore, in this diſeaſe to give opiates in ſuch quantity as to prove only gently anodyne. The watchfulneſs brought on and kept up by this diſeaſe is ſo great, that nature requires only an alleviation of pain, in order to recruit herſelf by reſt: opiates, therefore, given in this proportion, are only the occaſion of natural reſt, by relieving thoſe grinding pains and calls to ſtool which reſiſt

it,

it. Opiates thus given, though for a while they check the morbid diſcharge, yet afterwards they relax the orifices of the veſſels, and render the diſcharges more free and leſs painful.

But one of the principal benefits derived from anodynes in this diſeaſe, is the gaining of compoſure for promoting the efficacy of another kind of medicines, uſeful in all diſeaſes, but eſpecially ſo in this; namely, diaphoretics and gentle ſudorifics. Whether we conſider this diſeaſe as a fever, or as a topical inflammation ſeated in a Viſcus, which, as before explained, ſo immediately correſponds with the pores of the ſkin, and which has obſtructed perſpiration for its immediate cauſe, theſe medicines are highly neceſſary, and have not in fact, a more immediate and more ſenſible good effect in any formed acute diſeaſe than in this: but toſſing through want of ſleep, conſtantly recurring pains in the lower belly, and inceſſant calls to ſtool, render it almoſt impracticable to procure a diaphoreſis by the moſt efficacious medicines; without the aſſiſtance of anodynes it is impoſſible. Sleep naturally raiſes the pulſe and ſlakens its velocity; it repleniſhes the exhauſted veſſels, and repairs the waſted ſpirits with freſh ſupplies; it en-

creaſes the momentum of the blood, particularly in its direction towards the external ſurface of the body, and thereby relieves the internal parts. Hence it appears, why in this diſeaſe, particularly, anodynes and diaphoretics, may be conjoined with remarkable propriety and ſucceſs in one and the ſame doſe, and why the evening is the critical time for exhibiting them.

In general the medicines requiſite in this diſeaſe may with ſtricteſt juſtice be diſtinguiſhed into nocturnal and diurnal ones, which ought to be confounded as little as the ſtate of the patient and the diſeaſe will admit of. However, as it is ſometimes impoſſible, on account of particular ſymptoms, to adhere preciſely to the beſt general regulations, I ſhall mention two or three circumſtances which ought to interrupt ſuch a regular courſe. In ſome caſes, when the diſeaſe runs very high, and the ſymptoms are very obſtinate, the reſiſtance from the inflamed lower guts to correſpond with the propulſive action of the higher ones, and to receive and tranſmit the feces, it may happen that the medicines given to promote that intention ſhall be rejected upward again by vomit, and no natural paſſage downward ſhall be obtained.

In

In this caſe it is dangerous to be ſo bold and free with anodynes at night, as otherwiſe a phyſician might be with ſafety and advantage. Here it is not improper to remark, that when, in ſuch caſes, the common anodyne is dangerous, I have found another, both anodyne and ſudorific, not only ſafe but of ſignal benefit; namely, repeated fomentations of any warm decoction or infuſion, ſuch as camomile tea, or even warm water: there is never any contra-indication to theſe excellent applications, ſave the difficulty of keeping the bedcloaths dry during the uſe of them, which may be eaſily done by active and ſkilful nurſes.

Another circumſtance which ſuperſedes the above general rule is when a diaphoreſis is procured, and the pains, which were otherwiſe obſtinate, yield to it, it is ſometimes judicious to ſuſpend the uſe of other medicines, and puſh it on through the day, for, by this means, I have ſeen the diſeaſe ſometimes ſuddenly reſolved, which in appearance, and according to the ordinary courſe of it, would have otherwiſe been protracted to weeks. Some ſeaſons, indeed, may be more favourable for theſe revulſions than others, as I think the laſt of the ſeaſons, of which I write upon ſeveral obſervations, appeared to be conſiderably more ſo than the former.

As to the diaphoretics proper to be uſed in this diſeaſe, if the fever is high, the liquid diluting ones are moſt ſuitable: ſuch as, ſp. minderer. rendered properly anodyne, and mixed into a draught with any ſimple water, ſuch as aq. alexiter-epidem-theriacal-cinamon, &c. When the fever is not high, but the pulſe rather weak, the more warming diaphoretics anſwer beſt; ſuch as the theriacs, confect. cardiac, &c. rendered properly anodyne*.

There is one thing worthy of a particular remark here, as it is of general uſe in the practice of medicine; namely, the certain effect which an anodyne has of converting ipecacuan. into a powerful diaphoretic; ſo that, by concealing a few grains of this root, or ſome drops of its tincture, in a bolus or draught, its effect that way may be depended upon. Thus ipecacuan. approaches neareſt to a ſpecific of any one medicine in this diſeaſe, for, having no tendency to heat the blood, or encreaſe the fever unduly, by proper management it may be depended on as a ſafe

* As in this part of the ſubject I am ſo explicate, and at the ſame time ſo guarded in explaining the propriety and neceſſity of diaphoretics with anodynes uſed alternately, with emetics and purgatives, I am ſurprized that Dr. Zimmerman with this eſſay before him, ſhould not only leave them ſo much out of his method of cure, but ſhould even be diſpoſed to cenſure his countryman rather improperly I think for favouring them.

ſafe vomit, an eaſy purgative, a powerful diaphoretic, and a mild aſtringent, or rather a bracer of the tone of the veſſels.

Upon the whole, in ordinary caſes, nature is rationally and ſucceſsfully ſeconded and ſupported in vanquiſhing this diſeaſe by the regular adminiſtration of gentle bracing emetics and purgatives by day, and of anodyne diaphoretics by night.

Where there is evident danger of a mortification, as the cortex is the only ſpecific in that caſe, recourſe may be had to it immediately, not only with ſafety but advantage to the diſeaſe as the Dyſentery; for while it powerfully reſiſts putrefaction and mortification, it alſo ſtrengthens the tone of the ſtomach and ſmall guts, and revives their languiſhing propulſive motion. It is, at the ſame time, prudent to temper it with ſome rhubarb to carry it along the canal, leſt, by its lodging too long, its aſtringency ſhould ſhut the orifices of the meſeraic excretories, and ſo produce obſtructions in the glands*.

This is an effect it is apprehended to produce frequently, when given great quantities,

* This appears to have been alſo the opinion and practiſe of Dr. Whytt as cited by Sir John Pringle page 245 of the third edition of his obſervations

and for a long ſeries of time, to check obſtinate autumnal intermittents contracted in unwholeſome climates; inſomuch, that when the Britiſh troops were abroad, during the laſt war, in Zealand particularly, where I had opportunity to ſee moſt of the effects of the cortex in that diſeaſe, ſuch as did not recover by the uſe of it, or ſuch as frequently relapſed, died generally of dropſies from obſtructed viſcera, or of mortifications; which latter was more properly the effect of diſſolved blood and relaxed ſolids, their reciprocal action upon each other being totally enervated. It was commonaly reported among us at that time, that there was an act of the ſtates of that province prohibiting the uſe of that medicine among the inhabitants in autumnal agues, becauſe of its apprehended bad conſequences: what truth there was in the report I never had an opportunity of ſatisfying myſelf; but this I knew of many, and experienced upon myſelf perſonally, that the cortex always carried off thoſe dangerous intermittents moſt expeditiouſly and ſafely, when it proved a moderate laxative during the uſe of it, which does not altogether correſpond with their opinion, who think that medicine acts

only

only topically, and while its ſubſtance remains in the body.

But though the immoderate uſe the cortex may be apt to produce ſuch effects, which however I cannot affirm, and though it is adviſeable, even on other accounts, to conjoin ſome rhubarb with it in the Dyſenterey, yet there is little to be apprehended from that effect of it in this diſeaſe, ſeeing the ſhortneſs of the period which muſt determine its efficacy, and the inconſiderable quantity (when compared with that neceſſary in the malignant intermittents) in which it is taken, can threaten no ſuch conſequences.

The moſt inſuperable obſtacle to the ſucceſs of the cortex, where the uſe of it is neceſſarily indicated, is the hard undiſſolved ſtate of the feces undiſlodged from the lower parts of the ſmall guts and the higher part of the colon. If there has been little or no diſcharge of natural ſtools, during the courſe of the diſeaſe, it is always to be feared that there remains an obſtruction from theſe conſolidated feces, which, unleſs they can be reſolved and diſcharged, will repel all attempts to reſtore the inteſtines to their natural tone and action. And yet as the cortex frequently acts prima-

rily

rily as a laxative, in weak bowels, its action that way conjoined with rhubarb muſt be ſo far preſumed as to give it a trial in caſes where there is an imminent danger of mortification.

As I do not remember that this particular ſymptom of indurated feces, which I have reaſon to look upon as a pathognomonic one, during the ſtrength of the diſeaſe, has been particularly treated of, I would not have it therefore concluded as merely hypothetical. It is a fact, which I was led to attend to very early when the diſtemper became firſt epidemic at Newcaſtle in the year ſeventeen hundred and fifty eight, and which I have traced with attention in numbers ſince; it was likewiſe confirmed by the obſervation of ſeveral other gentlemen of the profeſſion in the place and neighbourhood at that time.

When we reflect upon it, it muſt be allowed a neceſſary conſequence of an inflammation in any part of the alimentary canal, and it is a ſymptom, which, unleſs it is obviated, no inflammatory diſeaſe in the bowels can be rationally cured. It is no argument againſt this fact, that in the decline of the diſeaſe, when the feces begin to flow regularly, they are generally liquid; for, by narrow inſpection, I have often obſerved they are at firſt

diſſolved

diſſolved lumps that had been indurated, as was evident from the number of ſmall hard bits mixed in them; not like the ſtools which flow equally liquid in a diarrhœa, or afterwards during the recovery from this diſeaſe.

I have great reaſon to apprehend, that this very circumſtance of hardened feces may prove fatal in the Dyſentery where there is no real mortification; particularly from one caſe which gave me great concern, and which I paid all the attention to in my power, as the patient was a very deſerving domeſtic of my own.

A young woman, who had been in a very indifferent ſtate of health through the ſummer, and who was but newly recovered of a febrile diſorder when ſhe came into my family at the Lammaſs, was in September, when the Dyſentery was moſt epidemic, ſeized violently ill of it, at the very ſame time that the menſes appeared, which ſtopped before, they had continued with her the fourth part of their ordinary period.—No doubt that diſcharge took the route of the diſeaſe.

Beſides theſe unauſpicious circumſtances ſhe had concealed her having the diſtemper for four days. When I was firſt informed of it, I found her as violently ill as any I had

had ever ſeen, who was not in the laſt ſtage of the diſeaſe: conſtant violent gripes and teneſmus, great heat and drought, a quick but not a full pulſe, bloody, ſlimy ſtools, but no natural ones, from the very firſt invaſion of the diſeaſe; and, as ſhe had almoſt no remiſſion of pain, ſhe got no ſleep. She was taken ill on the Monday, and got a vomit and anodyne on the Thurſday evening, before I was made acquainted with her illneſs. Next morning ſome blood was taken, which was never repeated, both becauſe her pulſe would not bear it, and becauſe the craſſamentum was very florid on the ſurface, without the leaſt appearance of ſizineſs, and of a very ſoft conſiſtence. Hoping that, bad as ſhe was, the worſt ſymptoms might yet be obviated, I was alarmed early next morning at hearing her hiccup ſeveral times. As her pains continued intenſe for four or five days after, I could not apprehend a mortification was already begun, ſo I attempted, ſometimes more than once every day, to urge and ſolicit natural dejections by both emetics and purgatives, beſides frequently repeated glyſters, but none could ever be obtained. All medicines either were rejected again, or aggravated her pains without any other effect, nor had I any better

ſucceſs

ſucceſs with anodynes: no medicine I durſt venture upon ever produced a natural ſtool*, and no anodyne could procure her an hour's ſleep, or reſpite from pain at a time. As her hiccup continued to increaſe, theriac and camphire were applied to her ſtomach, and a camphorated cordial julep adminiſtered internally. Theſe relieved that complaint conſiderably for ſome time.

Upon her pulſe ſinking, her pain abating, her extremities growing cold, and her ſpirits failing, I apprehended the approaches of a mortification, and applied a bliſter between her ſhoulders, ſinapiſms to her feet, allowed a free uſe of wine†, or ſpirits ſufficiently diluted, and ordered a decoction of the cortex with ſnake-root. Theſe in one night reſtored her to her former warmth, and maintained it for ſometime, with a profuſe diaphoreſis, which

* It has often ſurpriſed me that no author who has ſince wrote on the ſubject of the dyſentery has ever taken any notice, either of the knotty hard excrements, I frequently obſerved in this diſeaſe; nor of the ſtools being totally morbid without any mixture of natural excrement in moſt very bad caſes in this diſeaſe. I have ſometimes been inclined to queſtion, whether it muſt not have been a ſymptom peculiar to the diſeaſe, in theſe years this eſſay referrs to: but then it ſeems to be ſo natural an effect of ſuch a cauſe as that of a true autumnal dyſentery, that I ſtnow not how to make the ſuppoſition.—Therefore I ſhall leave the matter to the deciſion of further obſervation.

† I never obſerved any bad effects from wine moderately adminiſtered in this diſeaſe, when the pulſe and ſpirits were flagging, further than than that, in ſome ſickly ſtomachs, it was apt to turn four. In which caſes ſpirits and water or burnt brandy was a preferable cordial.

which greatly relieved her pain for two days; inſomuch, that I ſtill dreaded the tendency to a mortification; ſo I again ordered ſome rhubarb, which I thought would determine that matter by exiting her former gripes, if her bowels were ſtill ſound, which it did, and at laſt the decoction of the cortex had the ſame effect. I flattered myſelf, that the cortex was exerting its effect in ſtrengthening the tone of the guts and exciting their action, and looked upon the obſtruction, from the endurated feces, as the only thing to be conquered, which I even entertained ſome hopes of doing, as now ſome glyſters came away tinged with natural feces; but her ſpirits and ſtrength were exhauſted, and ſhe had an unuſual craving for very warm cordials. She could not continue the uſe of the decoction becauſe of the gripings it excited, and the parts were become ſo ſenſible and tender, that at laſt ſhe could not undergo the adminiſtration of glyſters. But what was moſt remarkable, ſhe complained now, and continued to do ſo for two or three days before her death, of a ſenſe ſhe had of ſome load to be diſcharged, which ſhe had not ſtrength to expel, but which ſhe ſaid, ſhe could not live without paſſing. A day or two before ſhe died, ſhe complained

complained of a ſoreneſs of her throat, which, being inſpected, was aphthous; an epitheme, the ſame with that applied to her ſtomach, was laid round it, and it was carefully waſhed with an infuſion of ſage and roſe leaves, with red wine added to it. This patient died on the fourteenth day, with little or no delirium until within a few hours of her death; ſome ſenſe of griping now and then to the laſt, and no in voluntary ſtools.

The principal reaſon for my inſerting this hiſtory is to ſhew, that though, from the beginning, the caſe was one of the moſt violent, and attended with ſome very unfavourable circumſtances to aggravate it, yet to the laſt there ſeems to have been no mortification in the bowels actually commenced, which is the caſe with few who die during the violence or febrile inflammatory ſtate of the diſeaſe: how far this was owing to the uſe of the cortex I ſhall ſubmit to the judgement of others. But I cannot help being of opinion, that if the diſeaſe, bad at it was, had been timely diſcovered, the bowels early emptied of the natural feces, and kept gently open and moving before the violence of the inflammation had impreſſed a continual ſpaſm and reniſus to the deſcent of the natural feces upon the inflam-

ed

ed inteſtines, the immediate cauſe of this patient's death would have been obviated.

This caſe, with many other examples, I have had both of hardened feces themſelves, and ſuch reſolved again and happily diſcharged during the violent ſtate of the diſeaſe, made me preſume that it would be of great uſe in the cure of it, if a mild laxative, properly corrected with carminatives and anodynes, could be contrived and adminiſtered frequently, ſo as gently to ſtimulate the inteſtines and reſolve their contents, without endangering any exacerbation of the gripings. I had very ſoon after a very proper occaſion of trying the ſucceſs of this method.

An elderly gentlewoman, of a pretty good conſtitution, had been very ill of this diſorder; the ſymptoms had abated conſiderably for ſome time under the management of a very ſkilful gentleman; but ſhe relaſped into the diſeaſe again with the ſame violence as as firſt. All along her pulſe had been remarkably full, on which account ſhe was let blood ſeveral times, and her blood was always uncommonly ſizy, beyond any perſon's I ever knew in this diſeaſe. In this relapſe ſhe was as feveriſh as at firſt; ſhe had a conſtant ſickneſs at her ſtomach, and a tendency to puke, which gave

gave her a conſtant kind of febrile anxiety, ſo that one would have apprehended her pain great, which, in fact, was not the caſe, for her gripes and teneſmus were remarkably gentle, though her ſtools were as bad as when theſe are moſt ſevere. From the firſt invaſion of the diſeaſe ſhe never had any natural dejections ſave twice, on two different days, that ſome little hard knots of feces were paſſed. In this ſituation, I being called in the evening, her ſtomach was waſhed with ſome camomile tea, and an anodyne was given both in a draught and glyſter. Next morning ſhe began to take every four hours the bigneſs of a nutmeg of lenitive electuary with ſome rhubarb, a ſmall portion of jalap, ſome confectio cardiaca and tinct. theb. added to it: by the uſe of this, natural ſtools were reſtored, hardened at firſt, the morbid diſcharges abated apace, the ſickneſs at her ſtomach was removed, the fever ſubſided, and ſhe recovered daily. I have been ſince inclined to think, that Dr. Cockburn's ſpecific electuary for the Dyſentery muſt be a compoſition of this nature, with, perhaps, ſome of the milder balſamic aſtringents added to it; for I have been told, that it acted rather as a gentle laxative than as any ſenſible aſtringent.

Upon the decline of this diſeaſe, after obſtinate and tedious caſes, when natural ſtools are reſtored to their courſe, the three following ſymptoms are frequently met with, ſome of which prove very troubleſome, nay ſometimes dangerous. The feces continue for a long time to be very liquid and diſſolved; white tallowy-like ſubſtances, frequently of a conſiderable ſize, are diſcharged by ſtool, and the patients are often diſtreſſed and reduced to great extremity by an obſtinate hiccup. Theſe three ſymptoms have each of them their particular reference to the three diviſions of the alimentary canal; namely, the great guts, or recent ſeat of the diſeaſe, the ſmall guts, and the ſtomach and gullet.

The looſe ſtate of the ſtools at this time, is what may be properly called a flux or diarrhœa*. It is the effect of the remaining weakneſs or relaxed ſtate of thoſe veſſels, of the great guts particularly, which ſecrete the humours for mollifying the feces, and lubricating their paſſage. Theſe veſſels, having not yet recovered their tone and contractile energy, pour out their moiſture in too great quantity,

* Dr. Zimmerman ſeems to have conſidered this as a continuation of the diſeaſe.

quantity, which keeps the feces in that liquid ſtate. This undue quantity of ſecretion (as all diſcharges proceeding from relaxation generally do) prevents the body from recovering its former ſtrength ſo ſoon as it otherwiſe might. Now it is, that gentle bracers and aſtringents become proper and uſeful, adminiſtered both internally and by glyſter. But the cure principally depends upon reſtorative nouriſhing diet, which the ſtomach has a remarkable craving for; a certain indication of recovery in the decline of this diſeaſe.

The white tallow-like ſubſtances are unnatural concretions formed in the ſmall guts during the courſe of the diſeaſe; their ſtrength and action being weakened and vitiated by the preceding inflammation of the great guts. The generation of ſuch ſubſtances is not peculiar to this diſeaſe, they being frequently diſcharged by perſons who labour under chronical diſorders and obſtructions of the alimentary canal. Whether it is the peculiar property of the liquor ſecreted from the plexus glanduloſi of the ſmall inteſtines, in weak ſtates of the bowels, to acquire this conſiſtence and appearence by inſpiſſation; or whether, more likely, the free abſorption of the Chyle being weakened and impeded, ſome of it

ſtagnating and mixing with the ſecreted juices, coagulates into theſe ſteatomatous-like ſubſtances*; or what other circumſtances may concur in generating them, is hard to determine. This, however, ſeems certain, that they are the production of the ſmall guts, as thoſe ſubſtances never begin to appear until the feces have regained their wonted paſſage along the great guts. Theſe appearances require the uſe of ſuch ſtrengthening purgatives as rhubarb, &c. with the addition of calomel ſometimes, which acts by its weight, in ſome meaſure, to aſſiſt nature in expelling them.

The ſeat of the hiccup, which is ſo very annoying to patients who are reduced very low before the inflammatory ſtate of the diſeaſe is conquered, is the ſtomach. This hiccup is carefully to be diſtinguiſhed from that far more dangerous one already mentioned, which occurs during the height of the diſeaſe. Though the firſt, when the ſymptoms happen to be removed or obviated which excited it, if the patient is before much reduced, often changes

* I cannot ſay this conjecture as to the nature of theſe concretions is ſo clear and ſatisfactory as I could wiſh it. Sir John Pringle has referred both theſe and the knotty excrements to the convaleſcent ſtage of the dyſentery. Theſe ſuety ſubſtances are not peculiar to the dyſentery, I have not unfrequently found them diſcharged in other bad chronical complaints of the bowels.

changes into the nature of the laſt. As the hiccup, in the decline of the diſeaſe, is intirely owing to a great inanition of the veſſels and relaxation of the ſolids, there is always hopes of removing it, if the patients conſtitution is not reduced paſt repair. But if that is not the caſe, as it has not any obſtruction of the inteſtines, nor inflammation degenerating into mortification, for its immediate cauſe, proper medicines, and nouriſhing light diet, will always cure it. Muſk and camphorated juleps, with other medicines of the ſame nature are very ſerviceable, together with theriac or other aromatic fomentations or applications externally. I tried oil of cinnamon dropt on a piece of fine ſugar, on account of its being ſtrongly recommended in ſome monthly paper, but found no greater effect from it than from other forms of aromatics. The truth is, if the ſtomach is very greatly relaxed, the uſe of aromatics is not ſufficient to remove the cauſe. The veſſels of the ſtomach being greatly relaxed, the gaſtric and other juices are poured into it in extraordinary quanties, which, by reabſorption and exhalation of its moſt fluid parts, collects into large quantities of viſcid indolent

phelgm, and proves a vaſt load upon the ſtomach in this enervated ſtate; therefore there is no other effectual method of relieving the ſtomach from time to time, but by repeated gentle bracing vomits; for untill the veſſels of the ſtomach recover their tone, the firſt ſign of which is a remarkable craving for food that plegm is recollected very faſt; and whenever it is regenerated in any quantity, the hiccup recurs again, though the vomit is always a temporary, and proves at laſt a total cure. Nothing anſwers the intention, both of vomitting and bracing the ſtomach, better than camomile tea, which I do not recommend as a ſpecific throughout the whole courſe of this diſeaſe in any other ſenſe, than as it is one of the moſt common, pleaſant, efficaciouſly antiſeptic, and bracing bitter infuſions.

There are three ſpecies of medicine, which I do not think it ſufficient to have taken no notice of, as they have been of too common uſe in the Dyſentery, though I ſuſpect them to be rather hurtful than ſerviceable in that diſeaſe. Theſe are liquid purges, aſtringents, and abſorbents.

Liquid purges, aqueous decoctions and infuſions, I mean, eſpecially where ſenna is an ingredient, are apt to generate flatulencies

and

and wind in the ſmall guts, eſpecially if there is any conſiderable obſtruction to the deſcent of the feces, either from their own indurated ſtate, or the inflammatory ſtate of the diſeaſed parts. By this means the gripings are both irritated and excited higher in the belly than they commonly ariſe in this diſeaſe. I have ſuſpected likewiſe, that theſe liquid purges being more abſorbed into the blood than thoſe given in ſubſtance are, they have more of a tendency to diſſolve it further than to ſtrengthen it*. For which reaſon I have always apprehended it more ſafe and ſucceſsful to give both emetics and purgatives in ſubſtance, allowing the juices, which they find in the guts, or which is ſolicited from them, to be their ſolvent. By this means there is another advantage gained. The gentle aſtringency, or bracing quality, inherent in the ſubſtance of ipecacuan and rhubarb particulary, and which does not part from their ſubſtance by infuſion ſo readily as the purgative quality does, is thereby conveyed, and co-operates in a mild and ſafe

* Here I principally allude to infuſions of ſena, though perhaps my ſuſpicion may not be well founded; but the moſt unſuperable obſtruction, I found to liquid purges, as I have noticed above, was the impoſſibility of getting them taken and retained by a conſtantly nauſeating ſtomach.

degree along with the other. For this may be obſerved of all medicines, which is notoriouſly known of the Peruvian bark, that it is more difficult to extract their aſtringent quality from them than any other virtue they are poſſeſſed of, unleſs it is from the delicate texture of bloſſoms and flowers; ſuch as baluſtian flowers, roſes, &c.

The impropriety of ſtrong aſtringents, where there is a large inflammation or ſuppuration in any part, is ſo obvious upon the leaſt reflection, that it is evident, I think, the practice muſt be very hurtful, until the decline of the diſeaſe, as above obſerved. While the guts are unemptied of the natural feces, and unopened to their paſſage, nothing can be more dangerous than to bind them up more. If ſtrong aſtringents have any meaning in this diſeaſe, they muſt be intended to act topically upon the veſſels from whence the morbid diſcharge is derived. But the firſt queſtion, as to that intention, is, how do theſe medicines reach the ſeat of the diſeaſe if there is not a free paſſage along the canal; And the next is, are they at all a proper topical application to the ſeat of a putreſcent infectious inflammation or ulcer.

The

The fatal effects of ſtrong aſtringents taken in large doſes, according to the direction of vulgar noſtrums for this diſeaſe, are ſo frequently to be met with, that it is enough to deter any phyſician from medling with that practice. The credit that theſe ſecrets gain, by their immediate effects, upon perſons who are effected with a ſlight degree of this diſeaſe, proves the deſtruction of many who labour under the true febrile Dyſentery. The melancholy accounts I have heard of whole families dying of this diſeaſe, in country places eſpecially, for want of proper care and directions, muſt make every perſon of humanity lament that ſo many ſhould be loſt in a diſeaſe, where early attention to it, and proper management of it, promiſe ſo much.

Abſorbents may be of ſome uſe in the ſtomach when an acid prevails there; and the beſt in that caſe is magneſia alba, which, by recovering and uniting with an acid in the ſtomach, becomes again a gentle laxative neutral ſalt; but how abſorbents are intended to act with regard to an inflammation, I am at a loſs know. They cannot enter the blood; if they can paſs along the alimentary canal while the ſmaller guts are indolent and unemptied of already endurated feces, their abſor-

bent

bent quality muſt be ſaturated before they reach the ſeat of the inflammation; the natural inertneſs of abſorbents muſt alſo be in hazard of increaſing the weakneſs of the propulſive action of the ſmall guts, and they muſt increaſe the dryneſs of the undiſlodged feces; ſome ſtriking examples of which are mentioned by Dr. Huxham, ſomewhere in his obſervations, De aëre et morbis epidemicis. Beſides all this, Dr. Pringle has demonſtrated, by his ingenious and judicious experiments on ſeptics and antiſeptics, that ſo far from being endowed with any antiſeptic quality, they, on the contrary, are evident promoters of putrefaction; conſequently they, mingling with the putrid humours of the bile and of the diſeaſed parts, if their efficacy can reach them, are in hazard of corrupting them further. How ſuſpicious then are the effects of chalk-juleps, and white decoctions, too freely adminiſtered in this diſtemper?

From a general view of what ought to be the intentions of cure, it is obvious, that mucilaginous and unctuous draughts muſt be in every reſpect preferable to abſorbent ones, even ſuppoſing the latter capable of doing

no

no hurt. Of the unctuous medicines*, the moſt ſolid ones, ſuch as ſperma cæti, muſt likewiſe be preferable; and if wax could be properly diſſolved, and its parts ſeparated, it would probably be preferable to any other. The beſt attempt to pulverize it, is the pulv. teſtac. cerat. pharm. Edinb. In that compoſition I look upon the abſorbent as of no further uſe than to ſeperate the parts of the wax; and though the ſcorching of it, in ſome meaſure, alters its balſamic quality, yet I apprehend it communicates a diaphoretic one to it.

This leads me to mention another very efficacious medicine in this diſeaſe, well known for ſometime paſt; namely, the vitrum antimonii ceratum. When prudently uſed, it is a good and powerful medicine for the Dyſentery. However long it may have continued a ſecret in ignorant hands, it muſt have been firſt diſcovered, and the uſe of it ventured upon, by a ſkilful and bold practitioner, who has judged rightly that this diſeaſe was, in a great meaſure, to be ſucceſsfully attacked by rouſing and preſerving the periſtaltic

* Dr. Zimmerman with great appearance of juſtice, ſeems to lay much ſtreſs on theſe, for they certainly tend greatly, both to ſooth the gripes and to lubricate the feces when they are hardened and obſtructed.

periſtaltic motion of the bowels by means of vomiting and purging. The medicine is ſafe at any time when the inflammation is not at a dangerous height, and the patient has ſtrength to undergo its operation. The doſe is uncertain, until the power of every preparation of it is tried. The wax in it ſeems principally deſigned to ſheath and cover the ſtrong degree of irritation in the vitrum antimonii. Its effect in proper doſes is the ſame with, though more violent than the ipecacuan; therefore the latter is generally preferable as a milder and more ſafe medicine. One thing to be remembered of the ſtrong antimonials is, that they are not ſoon, if ever exhauſted of their powers while they continue in the body; therefore the vitrum will act as a cathartic as long as it remains in any part of the canal, whereas the vegetable medicines have their emetic and cathartic virtues drawn from them by infuſion in the humours or fluids of the guts, and the remaining parts become indolent or ſubaſtringent.

It is probable that this medicine has been invented and uſed before the virtues and value of the ipecacuan root were known,

which

which has likewiſe been adopted as a ſecret in the cure of the Dyſentery, becauſe of its operation analogous to that of the vitrum. Dr. Gordon, of Dumfreis, communicated to me, ſince the writing of this, the noſtrum of one Jardin, an Iriſhman, who acquired great reputation and a ſmall fortune in Galloway, between twenty and thirty years ago, by curing the Dyſentery, only by the repeated uſe of the following draughts, proportioned to the age and ſtrength of the patient. ℞. pulv. R. ipecac. ℈i. bol. armon. ℈ij. coral. rubr. ppt. ℈i. aq. alexiter.——cinamom. hord. aa. ʒvi. ſyr. peon. ʒi. m. f. M. It is evident, that the ipecacuan was the medicine depended on, without which there could be no efficacy in the others for removing that cauſe of the diſeaſe which the ipecacuan is ſo ſuited for reſolving; beſides this mixture, he uſed only anodynes and a ſtrengthing electuary and cordial julep, during the recovery of ſuch as were greatly weakned by the diſeaſe.

If it is attended to when any diſtemper is epidemic, there will generally be found a great number of anomalous complaints prevailing, which have ſome affinity with the epidemic §.

The

§ Dr. Zimmerman remarks, that this was the caſe in the nighbourhood of theſe places which were the ſeat of the dyſentery, upon which he formed his obſervations on that diſeaſe.

Theſe were more numerous and various in the autumn, ſeventeen hundred and fifty-nine, than the preceding one. The latter of theſe ſeaſons eſpecially, it was very common for numbers of people, who eſcaped the Dyſentery, to be troubled with flatulencies, ſlight gripings and twitchings in the belly, which was generally attended with blackiſh ſtools, or ſuch as were of a darker colour than natural.

Stranguries were likewiſe pretty frequent, and icteric complaints, or the jaundice; theſe ſmall conduits and their ſphincters becoming ſometimes the ſeat of ſome degree of the epidemic complaint, by virtue of their affinity, and connexion with the inteſtines. The ſtrangury was a very common ſymptom in many fevers, which occurred during the prevalency of the Dyſentery. I attended one in a fever at that time, now happily recovered, who paſſed no urine for ten days, except what was drawn off by a catheter. I had then alſo particularly one patient, afflicted with one of the moſt obſtinate ſuppreſſions of urine that ever I met with in one who recovered from ſuch a diſeaſe, without any other concomitant complaint or diſeaſe, unleſs that of a tender relaxed habit.

Another

Another complaint, which frequently occurred during the laſt dyſenteric-ſeaſon, was dry gripes, which in ſome caſes roſe to a very excruciating and dangerous height. It was always produced by an unuſual ſluggiſhneſs of the inteſtines, which occaſioned a remora of the contents in the paſſage, until the bowels became overloaded by the accumulation of them. A middle aged healthy perſon was taken violently ill of this diſorder. It was attended with a remarkable ſluggiſhneſs of the pulſe, inſomuch that it did not beat ſeconds. His bowels yielded to the influence of a warming purgative electuary, and ſome glyſters of the ſame nature, ſo well that for two days the quantity of his diſcharges was really ſurprizing. His pains, and the languidneſs of his pulſe continued until the load was fully diſcharged: whenever that was the caſe, nature, like an elaſtic bow, ſuddenly unbent, recoiled to the oppoſite extreme. His pain ſubſided, his pulſe hurried all of a ſudden from one extreme to another; it grew remarkably quick and full, and he was in the delirium of a fever for two or three days more. Being perfectly recovered, but, contrary to his phyſician's advice, venturing abroad, and engaging in buſineſs which expoſed him to cold

cold too ſoon, he relapſed into ſome degree of his complaint again. By what degrees he recovered the ſecond time, I had not acceſs to know. This perſon, being a maſter glazier, it was afterwards fooliſhly reported, that his diſeaſe was owing to the fumes of the lead; but his diſorder differed nothing from the caſe of many others at that time. I had acceſs juſt then to be particularly acquainted with the caſe of another gentleman in a much more dangerous ſituation, from the ſame complaint, in ſo far as his diſorder hung about him for many weeks, and he was not at laſt relieved but by a very extraordinary diſcharge of hard knotted ſtools, mixed with half-diſſolved viſcid ſtuff, all almoſt as black as tar.

The Dyſentery this laſt ſeaſon differed in many reſpects from its appearance in the former ſeaſon. In the latter ſeaſon greater numbers had it in that ſlight degree, which was attended with little fever and no danger. In many, who were ſeized with ſeemingly great violence, it was unexpectedly checked when there appeared all reaſon to apprehend it would have run out to a much greater length. It was not uncommon to find it complicated with

with agues, rheumatiſm*, &c. into the latter of which it frequently degenerated. In the former ſeaſon the griping pains attending it were more confined to the lower belly: in the latter they were very ordinarily felt alſo in the back, along, as might be ſuppoſed, the windings of the rectum and colon; yet after the dyſenteric ſtools were, in a great meaſure, gone, and the diſeaſe over theſe pains often remained, or aſſumed the appearance of a lumbago or ſciatic, with pains ſtriking down the thighs.

Laſt ſeaſon the Dyſentery ſeemed to be ſucceeded by a low petechial fever, which however, did not ſpread at all ſo much as it ſeemed at firſt to threaten, for the winter was remarkably healthy. In one inſtance I ſaw the Dyſentery and this fever fatally united. In the former ſeaſon, though the ſame fever did appear ſometimes, yet the malignant ſore throat was much more epidemic the whole winter after the Dyſentery. The ſucceſſion

* This reſolution of the diſeaſe, which Dr. Akenſide had alſo obſerved, diſpoſed him to adopt the idea of the dyſenteries being a particular ſpecies of the rheumatiſm, in his Commentary on the Dyſentery. He, if I remember right, is alſo fond of aſcribing an anodyne virtue to ipecacuan, in very ſmall doſes. I have very commonly obſerved, eſpecially in very young perſons, a diſpoſition to ſleep after the operation of that medicine, as an emetic; but I never thought of imputing it to any thing elſe than the fatigue, and the ſubſequent ſenſe of eaſe, that generally ſucceeds the operation of an emetic.

of theſe diſeaſes to the Dyſentery ſeems to confirm the idea I have endeavoured to give of the nature and cauſe of that epidemic, and to reflect ſome light upon the procatartic cauſe of them.

It is worth obſerving, that the more the ſeaſon advances, and the later in the year it is, when perſons are ſeized with this epidemic, the more chronical do the ſymptoms of it grow.

FINIS.

DR. WILSON,

PROPOSES to commence a Courſe of Lectures upon the Phyſical Elements of the Theory and Practice of Medicine, for the benefit of ſuch as are engaged in the ſtudy of that ſcience.

A view of all that eſſentially belongs to the Science of Medicine, digeſted into one general courſe, ſeems ſo uſeful and ſo neceſſary a ſupplement, to a ſeparate Courſe of Lectures on each of the different branches of it, that the Doctor hopes ſuch an attempt will ſufficiently recommend itſelf.

Such a Courſe may ſerve, for a ſummary review of their ſtudies, to ſuch as have already attended prelections on the different branches of medicine: It may prove an uſeful introduction to the ſtudy of that ſcience to beginners, and furniſh them with general conceptions of all the particular branches of the ſcience they have to apply to: For thoſe who are deſirous of applying to the ſtudy, but may want time or opportunities for attending all the different claſſes of medicine, it may be a ſubſtitute for more particular inſtruction, and ſerve as a key to their further ſelf-improvment in whatever belongs to that profeſſion.

N. B. The Doctor will open the Courſe at his own Houſe, No. 6, in the Adelphi Buildings in the Strand, on the Second Monday in December, at Six in the Evening, with a Public Lecture on the Neceſſity and Utility of Theory, in Subſervience to the Practice of Medicine.

The Syllabus of the Lectures may, in a few days, be had at Mr. HOOPER'S, Bookſeller, No. 25, Ludgate-Hill.

Juſt publiſhed,

By the ſame AUTHOR.

In One Volume 8vo. Price in Boards 4s.

MEDICAL RESERCHES, into the Analogy and Diſtinction between Hyſteric and Hypocondriac Diſeaſes.—The Excellence of the Female Conſtitution and Character.—The Materiality of Vital Principle.—An Image of ourſelves in the Seat of Thought.—A Regeneration of it in the Seat of Communicative Life.—The Symptoms of Hyſterics deduced from this.—The Abuſe of Sugar the Cauſe of Infant Mortality, and of the Frequency of Hyſterics.—The Seat of Animal Heat.—The Structure of the Blood.—The Heart neither the Primary nor Principal Cauſe of the Blood's Motion.—Letters addreſſed to Sir Hildebrand Jacob, on the Materiality, Denſity, and Activity of Light; and on Air.

E R R A T A.

P 4. l. 11. *for* Stitehill *r.* Stitehell
P. 6. l. 9. *for* tolerablr *r.* tolerably
P. 8. l. 4. *for* to the anodynes *r.* to anodynes
P. 10. l. 2. *for* here, then *r.* here then,
P. 11. l. 7. *for* account them *r.* account the laſt
Ibid. l. 23. *for* if epidemic *r.* is epidemic
P. 27. l. 16. *for* 1759 *r.* 1758
P. 34. l. 4. *for* diſcharged. *r.* diſcharged,
Ibid. l. 25. *for* Then, *r.* then,
P. 46. l. 19. *for* faciliated *r.* facilitated
P. 49. l. 10. *for* and the *r.* and the ſtate
P. 55. ult. *for* given great *r.* given in great
P. 56. l. 14. *for* commonaly *r.* commonly
P. 61. l. 9, of the Note, *for* ſtnow *r.* know